SECTION 3
Report Attachments

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Attachment I – Coast Wide Monitoring Model

The knowledge and experience of active water quality monitoring groups in California is impressive. Many of the CMC groups and their volunteers have been active in monitoring local waters for many years and have developed robust procedures for the collection and analysis of samples, however some were new to water quality monitoring, and none had ever worked together at the scale of the proposed Coast Wide Snapshot Day. It was therefore, essential that a set of project wide standard protocols and quality assurance procedures were established and followed to ensure the stated goals were accomplished, procedures were comparable, and a coast wide set of comparable data was produced.

CMC Training

On March 10th and 11th 2003 the Coastal Watershed Council hosted a "Train-the-Trainers" workshop for the Coastal Monitoring Coordinators at the Southern California Marine Institute on Terminal Island, Long Beach, CA. Representatives from each of the eight CMC organizations were present, as well as members of the SWRCB Clean Water Team, California Coastal Commission, Central Coast RWQCB staff and other TAC members.

This workshop was the first time all of the participants met to discuss the program and the actions for which each participant would be responsible. Topics included: background & history of the Central Coast Snapshot Day event; media coverage and volunteer recruitment; equipment usage, calibration, and training requirements; site selection & mapping for the event; sample collection and monitoring protocols; quality assurance procedures before, during and after the event; data storage mechanisms; and reporting structure. A Coast Wide Snapshot Day Workbook was given to every participant.

The Workbook included supporting materials for implementing the monitoring event such as: the project specific Quality Assurance Project Plan and Monitoring Plan; the approved Snapshot Day Datasheet and instructions; the "Standard Operating Procedures" (SOPs) developed by the Clean Water Team for field measurements, sample documents of volunteer recruitment flyers and press releases and a draft (and later a final) manual for the Citizen Monitoring database interface created for this event.

Volunteer Training

The CMCs were then tasked with ensuring that all the watershed groups and volunteers in their coastal region understood, and could implement, the procedures outlined for this event. Training sessions were conducted by the CMCs in each region for volunteers participating in Snapshot 2003. These volunteer training workshops included hands on instruction on water quality testing and associated instrumentation, sample collection, safety, and data collection and management based on the concepts and materials from the CMC Workshop and Workbook. In addition to the training sessions, CMCs provided opportunities for calibration sessions associated with the project so that outside groups with equipment could perform calibration and standard comparisons on their own. The SWRCB Clean Water Team provided appropriate certified standards to the CMCs for these sessions.

Attachment II – Quality Assurance Report

The key role of the Coastal Monitoring Coordinators was to coordinate monitoring activities for their region. Those activities included calibration of field equipment, coordination of sample collection for laboratory analysis, holding and transport of samples and ensuring proper laboratory analysis. To meet the high objective set for this event, the CMCs were required to plan and implement a large number of logistically challenging and technically complex activities. All of those efforts however made it possible to complete this comprehensive Quality Assurance Report, which provides the reader or data user with the information necessary to fully understand the quality of the reported results. This brief report outlines those results and identifies both programmatic and analytical achievements and shortfalls.

Realizing the enormity of the task at hand; to coordinate volunteer groups throughout the coast in the collection of consistent data of known quality, and being that this was the first year that Snapshot Day was coordinated along the entire coast, many successes in implementing this program should be recognized.

The Coastal Monitoring Coordinators successfully:

- Implemented procedures to capture and preserve the linkage between each measurement result and the instrument or kit that was used to measure it
- Calibrated all of the Snapshot Day equipment provided for the event as well as many locally owned pieces of equipment, some of which had never been calibrated.
- Coordinated the laboratory analysis of samples from 366 stations along the coast.
- Orchestrated the laboratory analysis of a “known” nitrate standard in each region to allow for coast wide comparison of results.
- Ensured repetition of field measurements and collection of field duplicates and field blanks
- Distributed split samples among labs to enable inter-laboratory precision assessments
- Performed the numerous equipment and data tracking operations outlined in the QAPP to provide for this Quality Assurance Report.
- Achieved most of the Data Quality Objectives outlined in the Quality Assurance Project Plan and identified several areas for improvement.
- Provided water quality data that corroborated well with state impairment listings (303d) and identified several areas not listed which warrant further investigation.

It should be noted; while there was no laboratory budget, the CMC’s collected and coordinated the analysis for samples collected at 50% of the stations on Snapshot Day.

The intent of the Quality Assurance Report is to provide the results for the various procedures conducted, as part of the coast wide event, to minimize and quantify the error in the reported results. All of the information required by the Quality Assurance Project Plan (QAPP) and Monitoring Plan are provided in this report, compiled for the entire coast. Information includes QA sample inventory (field duplicates, field blanks, etc.) and extent of compliance with QAPP requirements; the percent of laboratories meeting the lab Measurement Quality Objectives (MQOs); and the percent of monitoring teams which achieved the field MQOs.

The Snapshot Day Monitoring Plan and Quality Assurance Project Plan outlines what needs to be done to control and check the accuracy and the precision of field measurements. For evaluation of precision, repeated measurements were made for each instrument or kit used in the field. Repeated measurements were performed by 78% of Snapshot Day teams for their thermometers, by more than 80% of the teams for their conductivity probes, DO kits, etc., and by 100% of the teams for their pH measurement devices. Table QA-1, column "% of teams reporting precision" shows further details.

Using these pairs of repeated field measurement, the Relative Percent Difference (RPD) was calculated for each instrument and kit (see note on the bottom of Table QA-1 for the RPD calculation). The percent of field instruments and kits that met the MQO for precision ranged from 78% to 100%, depending on the tested parameter. The differences between repeated measurements are most likely due to a combination of equipment error and natural variability within the monitoring station, but when different people perform each one of the paired measurements, variability among operators increases the RPD as well. Regardless, most paired measurements corroborated well, suggesting that the teams were well trained and able to carry out both the QA procedures and the technical requirements of the equipment.

Table QA-1: Outcome of Field Measurement QA Procedures.

Field Sampling Quality Assurance Report

Parameter	# of Teams	Detection Limit	Range of Instrument Resolution	% of teams reporting precision	Precision MQO (RPD)(1)	% of instruments meeting Precision DQO	Average RPD of all instruments (2)
Oxygen	160	0 mg/l	0.1 to 2	94%	± 10.00%	± 91%	± 6.53%
Temp - Air	133	(-5) °c	0.1 to 2	78%	± 10.00%	± 96%	± 2.51%
pH	185	4.5 pH	0.1 to 1	109%	± 15.00%	± 100%	± 0.94%
Conductivity	144	0 µS	0.1 to 10	85%	± 10.00%	± 96%	± 5.05%
Transparancy	69	0 cm	0.1	92%	± 10.00%	± 86%	± 3.10%
Turbidity	88	5 JTU	0.5 to 5	92%	± 10.00%	± 78%	± 5.78%
Temp - H20	152	(-5) °c	0.1 to 1	89%	± 10.00%	± 100%	± 0.78%

Notes:
(1) Relative Percent Difference (RPD), a measure of precision, is calculated from two repeated measurements taken at the same place and the same time, as the difference between the two values times 100 divided by the average of the two values.
(2) Because precision is instrument-specific, the average precision of a program using many instruments is meaningless and cannot be used to report the actual precision of the results.

Accuracy was calculated for conductivity meters that were checked against a standard after the event. Each meter was calibrated prior to use for Snapshot Day (to minimize the error). Many of the meters were also 'post-calibrated' to check the drift from the calibrated state, i.e., is the difference between the reading after the event (i.e., before the next calibration) and the true value of the standard that was used for calibration. Percent accuracy is calculated from the drift (post-event reading minus the "true" value of the standard), times 100, divided by the value of the standard. The accuracy of all the post-calibrated meters ranged from 0% to 52%. Of all the meters (approx. 150), three were found to have drifted beyond an acceptable range (greater than 10% error). This error was reported to the owners and the data generated using those meters were flagged in the database as questionable.

The Snapshot Day Monitoring Plan and Quality Assurance Project Plan also outlines the Quality Assurance requirements for the number of QA samples and for laboratory MQOs (precision and accuracy of lab results). A tally of the inventories including the number of samples taken, laboratories participating and number of QA samples collected and analyzed are presented in Table QA-2.

Table QA-2. Number of samples, participating laboratories, and number of QA samples collected by parameter.

QA Sample Frequencies

Parameter	# of Samples	# laboratories	# Blanks	# Duplicate	% Duplicates	# Splits	% splits
NO3	318	18	8	27	150.00 %	9	75.0 %
PO4	307	16	4	24	150.00 %	7	62.5 %
E coli / Fecal	366	21	21	23	109.52 %	8	62.5 %
Total	356	21	22	25	119.05 %	8	62.5 %

Duplicate samples were collected for each parameter in excess of the number required by the QAPP (i.e.150%). In addition, 302 nitrate samples were taken along the coast and analyzed by 18 laboratories. Quality assurance samples taken for nitrate include 8 blanks, 27 duplicates, and 9 laboratory splits (where the same sample was analyzed by several labs). The Procedural Quality Assurance requirements for nutrients had specified that split samples be analyzed for all regions where more than one laboratory is used for nutrient analysis. Split samples were analyzed in 75% of regions for nitrates and 62.5% of regions for phosphates where multiple laboratories were used, not meeting the procedural objectives for this program. While no Data Quality Objective was identified for the results of the laboratory split procedure, all but one of the comparisons met the precision MQOs for nutrients (± 0.2ppm).

Because it was infeasible to have each field team collect a complete set of Quality Assurance samples, it is impossible to relate the error associated with the laboratory analysis to individual batches of results. The field duplicates collected by 5% of field teams provide general insight on the reproducibility of the sampling and analysis procedures. For bacteria, we must rely on the laboratories' in house quality assurance protocols to ensure acceptable accuracy, as providing bacteria 'standards' to all the labs was impossible. The number of laboratories that met the Measurement Quality Objectives (MQOs) as prescribed in the QAPP was calculated and appears in Table QA-3.

Samples were collected at approximately 50% of the stations along the coast. Approximately 80% of nutrient duplicates (used to estimate precision) and all of the nitrate standards distributed to the CMCs (samples with known nitrate concentrations used to estimate accuracy) met this ±0.2ppm objective. Detection limits for the various laboratories ranged from 0.05ppm to 0.5ppm nitrate as N.

Table QA-3 Measurement Quality Objectives for laboratory analysis.

Laboratory Quality Assurance Report

Parameter	# of laboratories	Detection Limit Range	Number of Samples	Completeness (% sampled)	Measurement Quality Objective	% Labs meeing MQO for Precision	% Labs meeing MQO for Accuracy (±0.2)
NO3	18	.5-.05	318	49.84%	± 0.2 mg/l	80%	100%
PO4	16	1-.02	307	49.31%	± 0.2 mg/l	90%	
E coli / fecal coliform	17	100-2	366	55.94%	± 50%	75%	
Total coliform	17	100-2	356	54.60%	± 50%	75%	

MQOs for bacteria analysis do not include accuracy (it is virtually impossible to have a standard with a known number of bacteria), and are much less stringent for precision due to the high variability associated with bacterial counts methods. An RPD of 50% or even more is acceptable because we need to discern differences of orders of magnitude, i.e., results become a concern when they are orders of magnitude above background levels (e.g., 35 vs. 310 *E. coli* MPN/100ml). Precision objectives for *E. coli* and total coliform were ± 50% (RPD), estimated using duplicate samples collected at 5% of stations. The percent of laboratory samples meeting the objective was lower for bacteria than for nutrients, with only 75% of the laboratories meeting the MQO for *E. coli* and total coliform. For several of the samples with duplicates, there was significant difference between the two results (±200%), suggesting further work by those laboratories or field collection teams is warranted to improve QA procedures and results. None of the blanks analyzed for bacteria had detectable levels of *E. coli* or total coliform, suggesting that contamination of samples was not a problem.

Of the 33 areas of concern along the coast, 25 included exceedences of water quality benchmarks for *E. coli*. Because the Snapshot Day Program did not meet the Quality Assurance Objective for *E. coli* throughout the coast, caution should be used when interpreting the data.

Program Quality Assurance shortfalls

All of the regions fulfilled the Quality Assurance requirements for the field parameters. However, no region met all of the requirements for QA samples (i.e. # of field duplicates and blanks required) or all the objectives for precision and accuracy. Split samples were only required when more than one laboratory was used to analyze nutrient samples. In regions where only one laboratory participated, inter-laboratory precision was not relevant.

Estimating the precision of some laboratory samples was impossible because the sample results were either below or above the detection range for that parameter. In other areas, no duplicates were analyzed. The most common reason for not meeting this requirement for analyzing duplicates was the desire to increase the number of stations monitored for bacteria and nutrients. Since most laboratory analysis was done at no cost, meeting the requirement to include 5-10% duplicates and splits was often difficult, and many CMCs chose to increase their number of samples analyzed rather than to include all of the QA samples. This suggests that if California is to continue to support coordinated citizen monitoring, and it is determined that all of the laboratory QA requirements are necessary; some funding of laboratory analysis would increase the success of the program.

Data users and others responsible for integrating Snapshot Day data into regional data repositories such as the Central Coast Ambient Monitoring Program Database, require the ability to associate individual measurement results with the precision and accuracy results associated with the specific piece of field equipment that was used to measure them. By including unique equipment identifiers in the Field Data Sheets and as a data field in the Snapshot Day database, we are able to provide precision and/or accuracy for the field data, giving the end user information on the extent of error associated with each result value. In addition to completing this Coast Wide Quality Assurance Report, the Coast Wide Snapshot Day team has provided each of the Coastal Monitoring Coordinators with a regional report of their QA results.

By implementing these rigorous Quality Assurance protocols, we hope to generate Citizen collected data that are of as high a quality as those collected by state agencies and municipalities. Only by achieving these objectives will decision makers be able to confidently use these data. The report demonstrates that through the teamwork of a Snapshot Day Technical Advisory Committee, Coast Wide Snapshot Day team, and the invaluable efforts of the CMCs, the program was able to provide data of known quality using comparable procedures to answer a coast wide question. While this Quality Assurance Report has identified several procedural and analytical shortcomings, the report also demonstrates that with only minor modifications, these data can continue to be of consistent and high quality.

Next Steps

Because we did assign individual equipment identification numbers to each piece of field equipment, we can now go back to the database and calculate the error for each result value. This was not a part of the scope of work for this project but is feasible and will increase the usefulness of the data for state data repositories. Between 10 and 20 percent of the field equipment did not meet the MQO for this program. We did screen the Areas of Concern station to ensure they met the requirements of the QAPP and flagged questionable results, but have not yet screened the entire data set (Attachment VII). This process would greatly improve the usefulness of the data. For future years of this program, we hope to automate this process and be able to provide an estimate of error with each measured value prior to data interpretation.

Attachment III – Data Collection, Storage and Compilation

Data collection, data reporting and retrieval for analysis were tasks that required a great deal of consideration when applied to the coast wide model. A single data sheet and a single database were adopted for the project to ensure consistency across all regions. Providing a uniform document to be used by all monitors in the field, and creating a comprehensive repository to store and use as reporting and data retrieval tool required a great deal of effort and thought by the Team and the TAC. Together the data sheet and database helped the Team produce a comprehensive set of comparable data from the entire coast, housed in a single location, another fundamental goal of the project.

Data sheet

While most active water quality monitoring groups already had a data sheet for collection of field data and laboratory information, it was evident that an event specific datasheet was needed to help ensure consistent reporting of the data across the state. The Coast Wide Snapshot Day Data Sheet was created using the Central Coast Snapshot Day data sheet, which was based on numerous regional and State Board examples, as a model. The Central Coast data sheet was modified to accommodate the nature of the coast wide event and to incorporate TAC and CMC comments (the Coast Wide Snapshot Day Data Sheet is included in Attachment VI).

The data sheet was designed to include adequate placeholders for all measurement or analysis results as well as fields pertinent for “metadata” information such as instrument identification codes, “Replicate” measurements, and time of measurement. Station identification information such as the station name, waterbody name, and more detailed information such as the state hydrologic unit code and GPS positioning information could all be documented on the data sheet. As well, a separate section was included for documenting all water samples collected by the team in the field, complete with a chain of custody signature line for relinquishing samples at the end of the day. Additional fields for noting team members, environmental conditions, flow, water clarity, and wildlife were also incorporated into the data sheet.

A comprehensive data sheet ‘instruction form’ was provided to the CMCs to include with every data sheet volunteers took into the field. This form acted like a glossary, providing an explanation of every field on the Coast Wide Snapshot Day Data Sheet.

Data Storage & Retrieval

The Coastal Watershed Council developed a “Citizen Monitoring Database” in Microsoft Access that could track and report on information collected during water quality monitoring in 2002. A customized “Snapshot Day” interface was developed to work with the Coastal Watershed Council’s database for this event. This database was used to store, compile and report on information for Snapshot Day 2003.

As this database interface was created for the Snapshot Day 2003 event, it had limited development time and there were many problems worked out to accommodate such a complex set of relationship requirements.

A shell relational database structure and the Snapshot Day interface was distributed to each CMC organization prior to the event for the purpose of collecting all data associated with this event into a single repository.

Information supporting each measurement taken by volunteers for Snapshot Day was stored in the database. The structure including separate related tables that held information on organizations, instruments and instrument vendors, stations, field sample results, field environmental information, laboratory results, as well as many hidden tables that supported data entry. Furthermore, all the quality assurance results required for the project such as an inventory of certified Standards used for calibration, and the associated calibration and accuracy check results were all logged in associated tables.

A special data entry form was created within the Snapshot Day interface that mirrored the Coast Wide Snapshot Day Data Sheet. This complex and comprehensive form populated numerous tables within the database with required information to connect each individual "result" of a field measurements or test, as well as laboratory analysis results, to the station, team, and individual instrument associated with it. As well, the relational properties of the database allowed the connection of the calibration records and standards associated with each instrument to each result associated with that instrument.

The database improved the data entry process by automating many of the data entry actions with drop down menus for selection of units, or instruments drawn directly from the instrument inventory, and enforced use of standard reporting terminology.

The data entry form for the field data sheet also *demanded* a level of 'integrity' that could not have otherwise been achieved. The properties of the database allowed us to incorporate numerous "referential checks" before each completed form was submitted and recorded in the tables. These checks prevented incomplete records from being recorded. If, for example, there was no instrument ID associated with a measurement result, the data base would not recognize it.

We were also able to compile the data from the eight regional efforts into a single coast wide relational database and then build and export data using standard queries. As well, we could report on specialized sub-sets of information to create QA reports for CMCs to verify their data entry, or to evaluate the data results, provide quality assurance checks, and integrate the data into a GIS system for mapping of the results. A complete database description is available upon request.

Attachment IV -- Volunteer Participants List

CMC Region	First Name	Last Name
RCAA	Dian	Bacigalup
RCAA	Diane	Beck
RCAA	Colin	Belisle
RCAA	Heather	Brown
RCAA	Haley	Brown
RCAA	Taylor	Brown
RCAA	Jerry	Brown
RCAA	Robert	Brown
RCAA	Drew	Clendenen
RCAA	Ron	Cole
RCAA	Sonia	Cuellar
RCAA	Max	Cuellar
RCAA	Clark	Fenton
RCAA	Dave	Feral
RCAA	Ken	Fetcho
RCAA	Debbie	Filomeo
RCAA	Melanie	Filomeo
RCAA	Edy	Filomeo
RCAA	Michelle	Flockhart
RCAA	Morguine	Flynn-Sousa
RCAA	Dello	Freitas
RCAA	Ron	Guenther
RCAA	Lieben	Guenther
RCAA	Pam	Halstead
RCAA	Margaret	Herbelin
RCAA	Julia	Kane
RCAA	Anna	Kelly
RCAA	Scott	Kelly
RCAA	Heather	Lazard
RCAA	Ray	Lingel
RCAA	Melvin	McKinney
RCAA	Vanessa	Metz
RCAA	Chandra	Miller
RCAA	Heather	Miller
RCAA	C	Moss
RCAA	Nicole	Murano
RCAA	Jesse	Palmer
RCAA	Trevor	Parker
RCAA	Jennifer	Peters
RCAA	Maggie	Ramsey
RCAA	Gary	Rees
RCAA	Patricia	Rommel
RCAA	Jay	Rommel
RCAA	Sara	Rommel
RCAA	Alexander	Rommel
RCAA	Felicia	Ross
RCAA	David	Salomon
RCAA	Cheri	Sanville
RCAA	Lori	Schmitz
RCAA	Chad	Sefck
RCAA	Valerie	Spiers
RCAA	Roanne	Withers
RCAA	Drew	York
SRCD	Parshuram	Acharya
SRCD	Janet	Attard
SRCD	Tom	Baty
SRCD	Camelia	Bianchi
SRCD	Tom	Brown
SRCD	Phyllis	Burt
SRCD	Denise	Cadman
SRCD	Penny	Cantor
SRCD	Sierra	Cantor
SRCD	Terence	Carroll
MBNMS	Dee	Hall
SRCD	Judith	Corning
SRCD	Bryan	Eckert
SRCD	Fred	Euphrat
SRCD	Ken	Fox
SRCD	Lisa	Gonzales
SRCD	Jack	Gregg
SRCD	Vickie	Gregg
SRCD	Dominic	Gregorio
SRCD	June	Gregorio
SRCD	Brian	Hines
SRCD	Meagan	Isadore
SRCD	Dave	Jordan
SRCD	Neysa	King
SRCD	Darlene	LaMont
SRCD	Rob	Lichty
SRCD	Larry	Lynch
SRCD	Patty	Madigan
SRCD	Kate	McClain
SRCD	Don	McEnhill
SRCD	Michael	Mery
SRCD	Priscilla	Meyers
SRCD	Kathleen	Morgan
SRCD	Gary	Neargarder
SRCD	Bob	Nelson
SRCD	Duane	Nibblett
SRCD	Sara	Penn
SRCD	Dan	Penn
SRCD	Richard	Plant
SRCD	Tracy	Rexor
SRCD	Michael	Rochette
SRCD	Patricia	Rochette
SRCD	Dave	Rogers
SRCD	Ron	Rolleri
SRCD	Jim	Salomone
SRCD	Sarah	Shaeffer
SRCD	Tom	Yarish
FOE	Lynn	Axelrod
FOE	Barbara	Banfield
FOE	Elena	Belsky
FOE	Shauna	Benshoff
FOE	Jane	Bourne
FOE	Diane	Braumbaug
FOE	Rod	Brown
FOE	Rod	Brown
FOE	Bianca	Cabrera
FOE	Wes	Callow
FOE	Frank	Carroll
FOE	Ross	Clark
FOE	Steve	Cochrane
FOE	Katie	Colbert
FOE	Matt	Cover,
FOE	Carole	d'Alessio
FOE	Bryan	DeLeon
FOE	Sandy	Derby
FOE	Dolores	Duenas
FOE	Don	Eliason
FOE	Erica	Eliason
FOE	Spencer	Everson
FOE	Terri	Fagundes
FOE	JO	Frisch
FOE	Carolyn	Gaye
FOE	Tiffany	Gee
FOE	Morgan	Gustas
FOE	Ray	Gustas
FOE	Robert	Gustas
FOE	Ivette	Guzman
FOE	Bob	Hale
FOE	Jill	Halloran
FOE	Arthur	Ham
FOE	Jeff	Hargreaves
FOE	Peter	Hargreaves
FOE	Toby	Hargreaves
FOE	George	Henke
FOE	Erica	Herron
FOE	Jessica	Higgins
FOE	David	Houston
FOE	Christin	Jolicoeur
FOE	Revital	Katznelson
FOE	Jane	Kelly
FOE	Thomas	Kelly
FOE	Norm	Kidder
FOE	Nick	Kish
FOE	Jonathan	Koehler
FOE	Mike	Koslosky
FOE	Laura	Kretschmar
FOE	Nathan	Kruse
FOE	Nancy	Kubik
FOE	Mark	Lane,
FOE	Mondy	Lariz
FOE	Marilyn	Latta
FOE	Sue	Lattanzio
FOE	Ben	Lerch
FOE	German	Lopez
FOE	Mukul	Malhotra
FOE	Keith	Marsh
FOE	Sue	Mathews
FOE	Jim	McCarthy
FOE	Alan	McGee,
FOE	Steve	Midas
FOE	Diane	Minasian
FOE	Jose	Morales
FOE	Peter	Neal
FOE	Bob	Niedeve
FOE	Christal	Niedever
FOE	Katie	Noonan
FOE	Halima	O'Neil,
FOE	Elizabeth	O'Shea
FOE	Carli	Paine
FOE	Camille	Peterson
FOE	Jennifer	Peterson
FOE	Bob	Pike
FOE	Gabrielle	Quillman
FOE	Shirley	Reilly
FOE	Pam	Romo
FOE	Jesse	Roseman
FOE	Yao	Saechao
FOE	Liew	Saephan
FOE	Allen	Schneibe
FOE	Mitch	Schweickert
FOE	Anne	Senter
FOE	Jennie	Sexton
FOE	Jeff	Shore
FOE	Igor	Skaredoff
FOE	Shirley	Skaredoff
FOE	Ruby	Stein

California Coast Wide Snapshot Day 2003

CMC Region	First Name	Last Name
FOE	Brian	Tang
FOE	Cindy	Taylor
FOE	Martha	Ture,
FOE	Santiago	Villalba
FOE	Amy	Wagner
FOE	Richard	Wheeler
FOE	Marge	Wood
MBNMS	Lisa	Emanuelson
MBNMS	Mathers	Rowley
MBNMS	Gary	Allen
MBNMS	Zack	Alter
MBNMS	Jon	Anderson
MBNMS	Bill	Arkfeld
MBNMS	Ivy	Arkfeld
MBNMS	William	Baier
MBNMS	Sara	Bauer
MBNMS	Chris	Berry
MBNMS	Alan	Bilinski
MBNMS	Clari	Binder
MBNMS	Tim	Bolle
MBNMS	Pat	Bouldin
MBNMS	Ben	Bouldin
MBNMS	Erica	Burton
MBNMS	Christela	Castro
MBNMS	Goerge	Cattermole
MBNMS	Danny	Ceja
MBNMS	Ross	Clark
MBNMS	Chris	Coburn
MBNMS	Carey	Cooper
MBNMS	Ricky	Cortez
MBNMS	R.E.	Crompton
MBNMS	Amy	Cross
MBNMS	Anna	Cummins
MBNMS	Brad	Damitz
MBNMS	Ton	Deetz
MBNMS	Lua	Del Campo
MBNMS	Marty	Demare
MBNMS	David	Dilworth
MBNMS	Brenda	Donald
MBNMS	Sara	Dowe
MBNMS	Ken	Ekelund
MBNMS	Evonne	Elisondo
MBNMS	Ben	Fasbinder
MBNMS	Patricia	Fernandez
MBNMS	Dave	Fichtner
MBNMS	David	Fichtner
MBNMS	Jean	Fife
MBNMS	John	Fischer
MBNMS	Renee	Flower
MBNMS	James	Foster
MBNMS	Patrice	Friedmann
MBNMS	Denyse	Frischmuth
MBNMS	Robert	Frischmuth
MBNMS	Brian	Fulfrost
MBNMS	DJ	Funk
MBNMS	Leah	Funk
MBNMS	Josh	Gardiner
MBNMS	Annie	Gillespie
MBNMS	Suzanne	Gilmore
MBNMS	Mari	Gilmore
MBNMS	Lisandro	Gonzalez
MBNMS	Robin	Gysin
MBNMS	Gustav	Gysin
MBNMS	Kara	Hagedom
MBNMS	Susan	Harden
MBNMS	Jon	Harman
MBNMS	Rick	Hawley
MBNMS	Dawn	Hayes
MBNMS	Valentine	Hemingway
MBNMS	Devin	Henderson
MBNMS	Nathan	Hendricks
MBNMS	Anne	Hess
MBNMS	Janet	Hodder
MBNMS	Brian	Hoover
MBNMS	Tera	Hoover
MBNMS	Don	Hoover
MBNMS	Alex	Hyden
MBNMS	Katy	Imel
MBNMS	Gareth	Jackson
MBNMS	Jeannine	Jacobs
MBNMS	Eduardo	Jalles
MBNMS	Carolyn	Johnson
MBNMS	Matt	Johnston
MBNMS	Gabriel	Jost
MBNMS	Gregg	Kerlin
MBNMS	Mike	King
MBNMS	Ann	Kitajima
MBNMS	Chuck	Kozak
MBNMS	Robin	Lee
MBNMS	Dennis	Long
MBNMS	Benjamin	Ludin
MBNMS	David	Ludin
MBNMS	Jim	Mackenzie
MBNMS	Marabeth	Madsen
MBNMS	Rohanna	Mayer
MBNMS	Charles	McClain
MBNMS	Huff	McGonigal
MBNMS	Colleen	McGonigal
MBNMS	Teresa	Middlebrook
MBNMS	Sadie	Miles
MBNMS	Marcia	Minniham
MBNMS	Bette	Mittleman
MBNMS	Alexandra	Moore
MBNMS	Adriana	Morales
MBNMS	Tony	Morales
MBNMS	Jason	Nachamkin
MBNMS	Van	Nguyen
MBNMS	David	Norris
MBNMS	Becky	Ohsiek
MBNMS	Amanda	Ohsiek
MBNMS	Gail	Olson
MBNMS	Kelly	Palacios
MBNMS	Daniel	Palacios
MBNMS	Jeff	Palmeter
MBNMS	Miguel	Pantoja
MBNMS	Neil	Panton
MBNMS	Stephanie	Parker
MBNMS	Jim	Patterson
MBNMS	Judd	Perry
MBNMS	Krissy	Rathburn
MBNMS	Emily	Reilly
MBNMS	Pat	Renshaw
MBNMS	Joel	Rintoul
MBNMS	Nat	Rojanasathira
MBNMS	Richard	Rollins
MBNMS	Ruth	Romero
MBNMS	Roxanne	Rothafel
MBNMS	Sara	Sanchez
MBNMS	Mary	Scannel
MBNMS	Annie	Schmidt
MBNMS	Barbara	Schwimmer
MBNMS	Gary	Shallcross
MBNMS	Sylvia	Shih
MBNMS	Robin	Springer
MBNMS	Sharon	Squire
MBNMS	Jen	Stern
MBNMS	Tammy	Straw
MBNMS	Paul	Swinderman
MBNMS	Barry	Taruks
MBNMS	Ken	Tetzel
MBNMS	Rebecca	Thistlethwaite
MBNMS	Chris	Thompson
MBNMS	Breonna	Tiffany
MBNMS	Steve	Todd
MBNMS	Raechel	Toring
MBNMS	Joseph	Torres
MBNMS	Sharon	Towe
MBNMS	Oren	Trower
MBNMS	Charles	Turk
MBNMS	Bonnie	Van Hise
MBNMS	Melisa	Walker
MBNMS	Zach	Washburn
MBNMS	Jason	Watts
MBNMS	Elliot	Weston
MBNMS	Richard	Woodbury
MBNMS	Tiffany	Wothington
MBNMS	George	Wright
MBNMS	Warren	Yogi
MBNMS	Roger	Zachary
MBNMS	Natalie	Zayas
SBCK	Mary	Adams
SBCK	Simon	Allen
SBCK	Jessie	Altstatt
SBCK	Darcy	Aston
SBCK	Jessica	Benson
SBCK	Carol	Blanchette
SBCK	Tom	Boyles
SBCK	Luc	Classens
SBCK	Jenny	Coyle
SBCK	Sam	Cummings
SBCK	Tracy	Duffey
SBCK	Laura	Francis
SBCK	Steve	Francis
SBCK	Jorden	Francis
SBCK	Leigh Ann	Grabowsky
SBCK	Andrea	Harvey
SBCK	Anita	Harvey
SBCK	Paul	Jenkin
SBCK	Claire	Johnson
SBCK	Bill	Langford
SBCK	Al	Leydecker
SBCK	Brice	Loose
SBCK	Lalanya	Maestas
SBCK	Rick	Margolin
SBCK	Christina	Michael
SBCK	Curt	Montague
SBCK	Helene	Muller-Landeau
SBCK	Jill	Murray
SBCK	Mike	Murray

California Coast Wide Snapshot Day 2003

CMC Region	First Name	Last Name
SBCK	Vicki	Nabholtz
SBCK	Terri	Nichols
SBCK	Thomas	Oretsky
SBCK	Richard	O'Steen
SBCK	Lindsay	Parrish
SBCK	Gary	Perlmutter
SBCK	Monique	Prieto
SBCK	Michael	Robertson
SBCK	Tim	Robinson
SBCK	Roseanna	Rodcay
SBCK	Danny	Rodcay
SBCK	Marlene	Sassaman
SBCK	Wendy	Stanford
SBCK	Bill	Stratton
SBCK	Damon	Wing
SBCK	Kim & Vida	Yasuda
SBCK	Dale	Zurawski
SMBK	Nancy	Alvarez
SMBK	Ginachi	Amah
SMBK	Cesar	Arzadon
SMBK	Melinda	Becker
SMBK	Anita	Bhatt
SMBK	Jeff	Brandt
SMBK	Sheila	Brice
SMBK	Lisa	Carlson
SMBK	Curtis	Cash
SMBK	Frank	Chang
SMBK	Linda	Chilton
SMBK	Chu	Ching Lin
SMBK	Kathy	Chung
SMBK	Rosi	Dagit
SMBK	Ann	Dalkey
SMBK	Tim	DeMoss
SMBK	Dario	Diehl
SMBK	John	Dorsey
SMBK	Michael	Drennan
SMBK	Voy	Eap
SMBK	Craig	Edelman
SMBK	Sean	Eggers
SMBK	Gen	Espineda
SMBK	Christian	Fenton
SMBK	Kerry	Flaherty
SMBK	Steve	Fleischli
SMBK	Tom	Ford
SMBK	Karl M.	Foss
SMBK	Abby	Fox
SMBK	Jeff	Gando
SMBK	David	Garrett
SMBK	Heather	George
SMBK	Suzie	Given
SMBK	Pamela	Green
SMBK	Ed	Hendricks
SMBK	Kay George	Herzberg
SMBK	Scott	Higa
SMBK	Emily	Ho
SMBK	Jenny	Jay
SMBK	Hwa	Jin Kim
SMBK	Emiko	Kobayashi
SMBK	Kathleen	Kozawa
SMBK	Kristy	Kull
SMBK	Sharon	Landau
SMBK	Gwen	Lattin
SMBK	Christine	Lee
SMBK	Ioannice	Lee
SMBK	Quinnie	Lee
SMBK	Ricky	Lee
SMBK	Ning	Liang
SMBK	David	Lloyd
SMBK	Donna Lee	Lubansky
SMBK	Greg	Lyon
SMBK	Shokafe	Marashi
SMBK	Caryn	Marcus
SMBK	Meredith	McCarthy
SMBK	Gerry	McGowen
SMBK	Prudence	Michael
SMBK	Anant	Mokasi
SMBK	Jenny	Newman
SMBK	Shannon	Panknatz
SMBK	Celina	Perez
SMBK	Bill Lee	Phipps
SMBK	Jeanne	Phipps
SMBK	David	Rasmussen
SMBK	Jason	Refuerzo
SMBK	Bijan	Sadeghi
SMBK	Brigid	Saukaitis
SMBK	Larry	Sepulveda
SMBK	Kathleen	Snow
SMBK	Ellen	Stern
SMBK	Ted	Stoker
SMBK	Heal the Bay	Stream Team
SMBK	Nicolas	Tourneur
SMBK	Lynn	Tytla
SMBK	Alan	Walti
SMBK	Thea	Wang
SMBK	Pat	Williams
SMBK	Maria	Wilson
SMBK	Teresa	Young
SMBK	Ann	Zellers
OCCK	John	Bladow
OCCK	Jamie	Burwell
OCCK	Martin	Carreon
OCCK	Nikki	Carreon
OCCK	Cortney	Carreon
OCCK	Dan	Carusoe
OCCK	Diane	Comfort
OCCK	Marius	Cucurny
OCCK	Michael	Davis
OCCK	Scott	Gallegos
OCCK	Claire	Grozinger
OCCK	Deanna	Harkintz
OCCK	Connie Haw	Haw
OCCK	Ray	Hiemstra
OCCK	Bob Hogan	Hogan
OCCK	Kim Johnson	Johnson
OCCK	Vic	Leipzig
OCCK	James	Medlen
OCCK	Frank	Perez
OCCK	Nicole Riley	Riley
OCCK	Don	Schulz
OCCK	Cheryl Searo	Searoy
OCCK	Devin	Tate
OCCK	Helena	Tran
SDBK	Carolina	Acuna Armenta
SDBK	Rodolfo	Anguiano
SDBK	Raul	Arias
SDBK	Christine	Arrabit
SDBK	Badri	Badriyha
SDBK	Matt	Barden
SDBK	Christopher	Bartik
SDBK	Julio Cesar	Beltran
SDBK	Jennifer	Block
SDBK	Clay	Bolt
SDBK	James	Bolton
SDBK	Paulina	Bueno Gutierrez
SDBK	Aida	Bullen
SDBK	Eric	Burres
SDBK	Lilian	Busse
SDBK	Gabriela	Calzado
SDBK	Sergio Octavio	Cardernas Flores
SDBK	Enrique	Carrillo
SDBK	Laura	Carrillo
SDBK	Benjamin	Casillas
SDBK	Desiree	Castillo
SDBK	Desiree	Castillo Ruvalcaba
SDBK	Claudia	Cazares
SDBK	Bernice	Chan
SDBK	Alejandra	Chang
SDBK	Lizbeth	Chavez Jimenez
SDBK	Diane	Chen
SDBK	David	Christensen
SDBK	Manuel	Colon
SDBK	Michelle	Cordrey
SDBK	Korina O.	Cortes Uribe
SDBK	Yomara	Davila Rodriguez
SDBK	Alejandro	Del Aguila
SDBK	Carlos Alberto	Del Aguila Garcia
SDBK	Ivan Alejandro	Del Aguila Garcia
SDBK	Victor David	Del Aguila Garcia
SDBK	Deborah	Dobson
SDBK	Jordan	Finkelstein
SDBK	Shara	Fisler
SDBK	Ellery	Foster
SDBK	Manuel	Franco
SDBK	Veronica	Gallaga Beltran
SDBK	Suelem Patricia	Garcia Arias
SDBK	Carla	Garcia Zendejas
SDBK	Dave	Gibson
SDBK	Ivan	Golakoff
SDBK	Yarentei	Gomez Campos
SDBK	Sara	Grice
SDBK	Saul	Guzman
SDBK	Mike	Hardy
SDBK	Margarita Maria	Hernandez Estrada
SDBK	Edna	Higuera
SDBK	Liz	Hinkle
SDBK	Jose Cruz	Holguin Ruiz
SDBK	Nerehida Adrian	Huante Lopez
SDBK	Norma Alejandr	Huante Lopez
SDBK	Manuel	Huesca
SDBK	Jill	Hutzley
SDBK	Diana Isabel	Icedo Gomez
SDBK	Monica	Jauregui
SDBK	Oscar	Jimenez
SDBK	Dustin	Johnston
SDBK	Jennifer	Justis
SDBK	Sandor	Kaupp
SDBK	Isabelle	Kay
SDBK	Travis	Kemnitz
SDBK	Miguel	Khamuongsa

CMC Region	First Name	Last Name
SDBK	Justin	Kirrundoerfer
SDBK	Chattral	Koether
SDBK	Larry	Kope
SDBK	Bill	Lawrence
SDBK	David	Lee
SDBK	Diana Isabel	Leedo Gomez
SDBK	Alejandro	Leyva
SDBK	Hua	Liu
SDBK	Omar	Lizarraga
SDBK	Barbara	Lloyd
SDBK	Laura Irma	Lopez Calderon
SDBK	David	Lopez Sandoval
SDBK	Llilian	Luong
SDBK	Cynthia	Mallett
SDBK	Ivan	Manriquez
SDBK	Alma Lorenia	Marquez
SDBK	Victor	Martha
SDBK	Francisco	Martinez Gonzalez
SDBK	Laura	Martinez Rios
SDBK	Michelle	Mata
SDBK	Richard	Mathews
SDBK	Lisandro	Maya Ramos
SDBK	Bernabe Diego	Melendez Marquez
SDBK	Hakan	Mikado
SDBK	Jamie	Miller
SDBK	Margarita	Mogollon
SDBK	Ian	Moores
SDBK	Martin	Moreno
SDBK	Marissa	Nebenzahl
SDBK	Juliette	Nonale
SDBK	Julie	Noriega
SDBK	Paola	Noyola
SDBK	Ciarili	O'brien
SDBK	Larry	O'brien
SDBK	Wilfredo	Okendo Rivera
SDBK	Gustavo Arturo	Olvera Balderas
SDBK	Noopur	Pathak
SDBK	Alejandra	Ponce
SDBK	Yunuen	Ramirez
SDBK	Moria	Reagan
SDBK	Bruce	Reznik
SDBK	Alma Delia	Rodriguez Garza
SDBK	Angelica	Romero Duran
SDBK	Alfonso	Romo
SDBK	Martha	Rosales Aguilar
SDBK	Dariusz	Rowblewski
SDBK	Marionne	Rubio
SDBK	Gabriel	Ruiz
SDBK	Rick K.	Ryan
SDBK	Lisette	Salgado Patino
SDBK	Oscar	Sanchez
SDBK	Juan Carlos	Sanchez Ramirez
SDBK	Hiram	Sarabia
SDBK	Hiroko	Shimasaki
SDBK	Ana Marcela	Sosa
SDBK	Paula	Stigler
SDBK	Liz	Studebaker
SDBK	Brandon	Swope
SDBK	Constance	Szczublewski
SDBK	Hilda	Uribe
SDBK	Jose	Valadez
SDBK	Alejandra	Vazquez
SDBK	Octavio	Villalobos Mendez
SDBK	Lorena	Warner-Lara
SDBK	Christina	Wedell
SDBK	Gretchen	Witti
SDBK	Lauren	Yamane
SDBK	Manuel Elias	Zamora Rodriguez
SDBK	Ingridh	Zarate
SDBK	Julio Cesar	Zuart

Attachment V – Participating Agencies, Organizations & Donor Businesses

Listed by Coastal Monitoring Coordinator

RCAA—

AmeriCorps Watershed Stewards Project
California Coastal Commission
Campfire USA's W.A.T.E.R. Program
Central Coast Regional Water Quality Control Board
City of Crescent City
Coastal Watershed Council
Crescent City Waste Water Treatment Plant
Fortuna Creeks Project
Friends of the Noyo River Watershed
Gateway Education
Grant Elementary School
Humboldt State University Wastewater Utilization Lab
Humboldt Bay Watershed Advisory Committee
Mad River Watershed Group
Mattole Salmon Group
Mattole Restoration Council
McKinleyville Creeks
Mendocino County Rural Institute
Monterey Bay Sanctuary Foundation
North Coast Environmental Center
North Coast Laboratories
Salmon Forever
Streamline Planning Consultants
United States Environmental Protection Agency
Yurok Tribe Environmental Program
Kokatat
Los Bagels
Muddy Waters Coffee Company
North Coast Cooperative
North Coast Laboratories
For the Sake of the Salmon

SRCD—

Atascadero/Green Valley Watershed Council
City of Santa Rosa Creek Stewardship Program
City of Santa Rosa, Public Works Department
City of Santa Rosa, Utilities Department, Laguna Wastewater Treatment Plant
Community Clean Water Institute
Farallones Marine Sanctuary Association
For Sake of Salmon
Friends of the Russian River
Gualala River Watershed Council
Marin County Resource Conservation District
Marin Municipal Water District
Mendocino County Resource Conservation District
Mendocino County Water Agency
Navarro Watershed Working Group
Point Reyes National Seashore

Russian Riverkeeper
Sebastopol ACE Hardware
Sonoma County Water Agency
SPAWN
Sonoma State University
Stewards of Slavianka
Tomales Bay Watershed Council

FOE—

Acterra
Butters Land Trust
Children's Discovery Museum
Creek Keepers
East Bay Regional Park District
Fly Casters Inc.
Friends of Alhambra Creek
Friends of Corte Madera Creek
Friends of Five Creeks
Friends of Novato Creek
Friends of Pinole Creek
Friends of San Leandro Creek
Friends of Sausal Creek
Friends of Temescal Creek
Friends of Walnut Creek
Lighthouse Community Charter School
Los Medanos College
Napa County Resource Conservation District
Oakland High School—Environmental Science Academy
Partners for the Watershed
Save the Bay
SPAWNERS
State Water Regional Control Board--Region 3
Sunol-Ohlone Regional Wilderness Interpretive Center
U.S. EPA region 9
Washington High School

MBNMS—

Arana Gulch Watershed Alliance
Beckman's Bakery
Big Creek Reserve
California Coastal Commission
Central Coast Regional Water Quality Control Board
City of Monterey
City of Pacifica
City of Pacific Grove
City of Santa Cruz
City of Watsonville
Coastal Watershed Council
Creekside Environmental Laboratory
Crystal Geyser Water
Crystal Springs Water
DeAnza College
Earth Systems Science and Policy Program (CSUMB)
Elkhorn Slough National Estuarine Research Reserve
Garrapata Watershed Council
Greenspace

Monterey Bay Analytical
Monterey Bay National Marine Sanctuary
Monterey Bay Sanctuary Foundation
Monterey County Community Links
Monterey Regional Water Pollution Control Agency
New Leaf Market
Noah's Bagels
Nob Hill
Odwalla
Pacific Cookie Company
Peet's Coffee
San Lorenzo Urban Restoration Project
San Lorenzo Valley High School
San Luis Obispo County Environmental Health
San Mateo County Environmental Health
Santa Cruz County Environmental Health
Santa Cruz Safeway
Scott Creek Watershed Council
Starbuck's Coffee
State Water Resources Control Board Clean Water Team
Surfrider Foundation
The Ocean Conservancy
Trader Joe's
United States Environmental Protection Agency
Upper Salinas Las Tablas RCD
Upper Salinas Watershed Coalition
Watershed Institute, CSUMB

SBCK—

California Coastal Commission
Central Coast Regional Water Quality Control Board
Channel Islands National Marine Sanctuary
City of Santa Barbara
Community Environmental Council
County of Santa Barbara
Santa Barbara Channelkeeper
State Water Resources Control Board Clean Water Team
Surfrider Foundation-Isla Vista Chapter
Surfrider Foundation- Ventura Chapter
United States Environmental Protection Agency
University of California at Santa Barbara
Ventura Coastkeeper
Anna's Bakery
Debbie's Delights
Jack's Famous Bagels
Peet's Coffee
Trader Joes

SMBK—

Southern California Marine Institute
Loyola Marymount University,
University of California, Los Angeles
Friends of the Los Angeles River,
Cabrillo Marine Aquarium,
Heal the Bay
Surfrider Long Beach,
Algalita Marine Research
City of Los Angeles
Los Angeles County
Los Angeles Regional Water Quality Control Board
Resource Conservation District of the Santa Monica Mountains
Noah's Bagels
Wild Oats Market

OCCK—

Bolsa Chica Conservancy
Del Mar Laboratory
D.I.V.E.R.S.
Geomatrix Consultants Inc.
Golden West College
Orange County Coastkeeper
Orange County Sanitation District
Surfrider, Long Beach-Huntington

SDBK—

Cetys Universidad
City of San Diego Stormwater PPP
County of San Diego Project Clean Water
County of San Diego Water Authority
Henry's Marketplace
Instituto Mexico
Mission Resource Conservation District
Ja Jan
Preparatoria Federal Lazaro Cardenas
San Diego Regional Water Quality Control Board
San Diego Stream Team
Sea to Sea Trail Foundation
SDSU Environmental Engineering Program
Sister Schools of San Diego
SWRCB Clean Water Team
Surfrider Foundation
UABC
UCSD Reserve System
UCSD Scripps Institution of Oceanography
UCSD Superfund Basic Research Program
UCSD CalPIRG
Universidad Iberoamericana (UIA)
Universidad y Preparatoria Xochicalco
USD Marine and Environmental Science Program

Attachment VI – Field Data Sheet

Coast Wide Snapshot Day 2003

DOC_ID# :_____

[CMC LOGO HERE]

GPS Coordinates
Datum:
W:
N:
GPS_ID:

Field Data Sheet

Please **Use one sheet for each Station**. Use back for comments.

Hydrologic Unit ID:

Watershed:

Station (Site) ID:

Watershed Group Name:

Waterbody:

Site map is attached to this data sheet, please update if necessary.

Waterbody Type:

Flow discharge (circle one):
Stagnant (NOT Flowing); Trickle (< 1 quart/sec);
Moderate (< 5 gal/sec); High (> 5 gal/sec)

Weather Conditions (circle):
Has it rained within the last 24 hours? Y / N

-- SKY--	-- PRECIPITATION--	-- WIND--
no clouds	none	none
partly cloudy	foggy	breezy
heavy clouds	misty	windy
overcast	rain	blustery

Volunteer Monitors
TEAM LEADER (list full name & phone #):
2)
Phone: ( ) -- 3)
4) 5)
(list additional names on back)

Time of Field Measurements:

INSTRUMENT ID	PARAMETER	RESULT	Replicate	UNITS
	Air Temperature			F or C
	H2O Temperature			F or C
	pH			pH units
	Dissolved Oxygen			mg/l (ppm)
	Conductivity			µS mS
	Turbidity			JTU NTU
	Transparency			cm
				UNIT
				UNIT
				UNIT

(circle appropriate unit)

Water Clarity (circle one):
clear cloudy murky
(water itself, not scum)

Sampling device used? Y N
If so, what kind?
Kemmerer bottle
other:

Notes and Observations :
(include any equipment comments/problems or observations such as water color, trash composition, etc...)

Fish or Wildlife Observed:
(describe number seen, length of fish, and behavior)

Sample Collection:

Sample ID:	Time Collected:	Collected by:	Type:	Container type :
			Bacteria	
			Nutrient	
			_____	
			_____	

Sample Custody:

Relinquished By:	Received By:
Date /Time:	Date /Time:

This event sponsored by the California State Water Resources Control Board, the US Environmental Protection Agency, the California Coastal Commission, the Monterey Bay Sanctuary Foundation, and the Coastal Watershed Council among many others.

Do not jeopardize your personal safety to complete this datasheet.

Attachment VII – Coast Wide Result Table

Result Data Table with All values in unacceptable ranges highlighted.

CMC	StationID	Time of Field Measurements	Flow	AirTemp (Deg C)	Conductivity (uS)	Dissolved Oxygen (ppm)	pH	Tranparency (cm)	Turbidity (JTU)	Salinity (ppt)	WaterTemp (Deg C)	E. Coli (MPN/100 ml)	Fecal coliform (CFU/100 ml)	Enterrococcus (MPN/100ml)	Total coliform (MPN/100ml)	Nitrate-N (mg/L)	Ortho-phosphate-P (mg/L)
RCAA	107RED-10	13:30	moderate (<5 gal/sec)	15.5	80	8.0	7.0	120.0			15.5		2		34	0.10	0.01
RCAA	110HH	12:00	high (>5 gals/sec)	13.0	130	6.0	6.5	120.0	7.0		10.5		50		1600	0.10	0.01
RCAA	110FRS-10	14:15	Not recorded	19.4		8.3	7.5	47.0			15.0		50		1600	0.10	0.03
RCAA	109PAR-10	12:00	moderate (<5 gal/sec)	11.3	200	10.0	7.0	122.0			10.9		130		240	1.80	0.01
RCAA	105KLA-TG	12:00	high (>5 gals/sec)		101.1	10.4	7.7				12.7						
RCAA	105KLA-MF	11:00	Not recorded		110.2	10.5	8.0				11.1						
RCAA	106TRI	12:00	Not recorded		109.1	10.6	7.8				11.1						
RCAA	105KLA-WE	12:00	Not recorded		103.6	10.9	9.0				11.6						
RCAA	108JOL-10	11:15	moderate (<5 gal/sec)	16.0	130	10.0	7.0	105.1			10.0						
RCAA	108LUF-10	8:50	high (>5 gals/sec)	9.0	60	8.0	7.0	122.0			9.0						
RCAA	109MIL-10	11:05	high (>5 gals/sec)	10.7	100	10.0	7.0	122.0			10.0						
RCAA	108MIL-20	9:35	moderate (<5 gal/sec)	9.1	80	9.0	7.0	122.0			9.2						
RCAA	109STL-10	11:30	Stagnant water	16.5	NR	6.0	7.5	72.0			18.0						
RCAA	109LIT-10	13:20	high (>5 gals/sec)	17.5	60	9.0	7.0	122.0			11.0						
RCAA	109MAD-10	15:30	high (>5 gals/sec)	17.4	120	8.0	7.5	45.0			14.0						
RCAA	109MIL-10	11:30	moderate (<5 gal/sec)	13.5	90	8.0	7.0	57.4			11.0		68		411		
RCAA	109NFM-10	15:00	high (>5 gals/sec)	10.3	110	6.0	7.0	120.0			15.0						
RCAA	109STR-10	11:00	moderate (<5 gal/sec)	11.4	120	8.0	6.5	79.4			12.0		67		263		
RCAA	109WID-10	10:00	high (>5 gals/sec)	11.4	160	8.0	6.5	99.8			11.5		334		414		
RCAA	110BET-1	13:50	moderate (<5 gal/sec)	13.0	150	6.0	7.0	120.0	7.9		10.5		6		343		
RCAA	110CL	11:15	moderate (<5 gal/sec)	13.0	130	10.0	7.0	120.0	11.1		9.0						
RCAA	110COO-10	12:50	trickle (<1 quart/sec)	15.0	190	8.0	6.5		20.0		12.0						
RCAA	110ELK-10	11:15	high (>5 gals/sec)	15.0	150	10.0	6.5				10.4						
RCAA	110FCR-40	11:00	high (>5 gals/sec)	12.8	130	11.0	7.0	120.0			9.5						
RCAA	110GG	10:55	high (>5 gals/sec)	10.5	170	10.0	7.0	120.0	10.0		9.5						
RCAA	110ORTZ1	14:10	moderate (<5 gal/sec)	13.1	150	6.0	7.0	120.0	9.0		10.0						
RCAA	110HUM-20	16:15	high (>5 gals/sec)	13.3	58.4	7.6	8.0	10.8			15.0						
RCAA	110JAN-10	10:30	moderate (<5 gal/sec)	14.0	120	8.0	6.0	41.1			10.0						
RCAA	110JOL-10	9:30	trickle (<1 quart/sec)	12.0	110	10.0	7.0	102.3			9.0						
RCAA	110JTG-10	18:38	high (>5 gals/sec)	14.5	130	7.0	7.0	120.0			12.5						
RCAA	110MAR-10	11:50	moderate (<5 gal/sec)	17.0	350	8.0	6.5		20.0		14.0						
RCAA	110MAR-20	12:15	moderate (<5 gal/sec)	16.0	190	8.0	6.5		30.0		12.0						
RCAA	110MC	11:40	moderate (<5 gal/sec)	11.5	150	6.0	7.0	120.0	8.4		9.1		8		531		
RCAA	110MCC-10	13:30	high (>5 gals/sec)	13.3	150	11.0	7.0	120.0			9.5		7		139		
RCAA	110NFE-10	10:00	high (>5 gals/sec)	17.0	150	8.0	6.5		0.0		10.0						
RCAA	110OGA-10	16:30	trickle (<1 quart/sec)	14.0	230	7.0	6.5	21.6			12.0						
RCAA	110SFE-10	10:45	high (>5 gals/sec)	17.0	150	10.0	6.5		0.0		10.0						
RCAA	111E-1	10:15	high (>5 gals/sec)	15.5	170	10.0	0.2		21.0		14.6						
RCAA	111E-2	10:40	high (>5 gals/sec)	15.5	180	9.0	8.1		18.1		13.8						
RCAA	111M-1	10:40	high (>5 gals/sec)	12.7	110	10.0	7.8		8.9		9.0						
RCAA	111M-2	10:33	trickle (<1 quart/sec)	11.0	110	10.2	0.1		15.1		15.0						
RCAA	111R-1	9:30	high (>5 gals/sec)	12.0	340	10.0	7.8		20.6		9.0						
RCAA	111R-2	9:45	moderate (<5 gal/sec)	10.0	290	9.0	8.2		5.5		11.0						
RCAA	111RSM	9:55	high (>5 gals/sec)	13.5	300	9.7	7.7		13.7		11.3						
RCAA	111S-1	8:30	high (>5 gals/sec)	12.0	330	10.0	7.8		82.5		9.0						
RCAA	111S-2	10:13	moderate (<5 gal/sec)	10.0	230	9.4	8.0		13.1		11.0						
RCAA	112MAT-05	12:00	high (>5 gals/sec)	15.0	160	10.0	7.5	50.0			14.5						
RCAA	112MAT-10	10:45	high (>5 gals/sec)	15.0	170	12.0	7.5	48.5			14.0						
RCAA	113NAV-10	14:00	high (>5 gals/sec)	15.0	230	12.0	7.0	113.0			14.0						
RCAA	113NOY-10	16:00	high (>5 gals/sec)	15.0	280	11.0	7.0	115.0			13.0						
RCAA	113PUD-10	10:00	high (>5 gals/sec)	20.0	140	9.0	7.0	88.0			14.5						
RCAA	113PUD-20	12:30	high (>5 gals/sec)	NR	140	11.0	7.5	51.0			14.0						
RCAA	103EMI-10	11:10											7		170		
RCAA	103ELK-10	2:15											46		430		
RCAA	109PAR-20	10:15	trickle (<1 quart/sec)	9.5	140	8.0	7.0	91.0			9.5						
RCAA	110FTR	10:00	high (>5 gals/sec)	12.0	130	10.0	7.5	120.0			9.0		86		332		
SRCD	201-ALC-10	NR	trickle (<1 quart/sec)	15.6	1371	10.5	7.7	51.0			10.8	517			2419	0.10	0.10
SRCD	201-LAG-10	NR	high (>5 gals/sec)	17.0	240	7.0	7.5	122.0			14.0	261			1	0.10	0.10
SRCD	201-MIL-10	NR	moderate (<5 gal/sec)	20.0	1010	9.0	7.0	116.0			14.0					0.10	0.10
SRCD	201-TOM-10	12:44	moderate (<5 gal/sec)	19.0	350	9.0	7.5	122.0			13.5	291			2419	0.10	0.10
SRCD	201-WAL-10	11:28	high (>5 gals/sec)	14.5	270	8.0	7.0	93.5			15.0					0.10	0.14
SRCD	201-LAG-40	11:35	moderate (<5 gal/sec)	20.0	220	11.0	7.0	120.0			11.5	38			1300	0.16	0.10
SRCD	201-DEV-10	10:13	moderate (<5 gal/sec)	19.5	330	11.0	7.5	120.0			10.5	28			517	0.18	0.10
SRCD	201-OLE-10	10:19	high (>5 gals/sec)	12.2	223.9	9.6	7.6	122.0			11.7	387			2419	0.20	0.12
SRCD	201-3VC-10	12:05	moderate (<5 gal/sec)	21.1	199.8	9.5	7.4	122.0			12.2	80			649	0.23	0.10
SRCD	201-HAG-10	10:47	Not recorded	16.7	333.4	10.2	7.7	122.0			10.7	2419			2419	0.28	0.10
SRCD	114-AUC-10	10:50	moderate (<5 gal/sec)	13.0	260	6.0	7.0		0.6		13.0		11		14	0.40	0.10
SRCD	114-BRC-10	10:09	high (>5 gals/sec)	22.0	350.9	7.3	7.9	120.0			15.8		220		500	0.40	0.10
SRCD	114-DBC-10	12:00	moderate (<5 gal/sec)	14.0	240	9.0	7.0		0.7		11.0		30		500	0.40	0.10
SRCD	114-MAA-10	12:00	Not recorded	21.5	200	8.0	8.3	122.0			14.5		130		240	0.40	0.10
SRCD	114-MWC-10	8:25	high (>5 gals/sec)	13.0	270	9.0	7.0		2.0		14.8		220		220	0.40	0.10
SRCD	114-RUR-10	10:20	Not recorded	9.0	590	9.0	7.5		11.6		15.0		40		110	0.40	0.10
SRCD	114-RUR-20	11:20	moderate (<5 gal/sec)	13.0	280	5.0	7.0		10.8		16.0		20		170	0.40	0.10
SRCD	114-RUR-30	10:20	high (>5 gals/sec)	21.0	280	8.0	7.5	53.0			17.0		20		40	0.40	0.10
SRCD	114-RUR-40	11:30	high (>5 gals/sec)	21.0	270	8.0	7.0	65.0			17.0		70		70	0.40	0.10
SRCD	114-RUR-50	12:20	high (>5 gals/sec)	23.0	270	9.0	7.5	75.0			17.0		20		40	0.40	0.10
SRCD	114-RUR-60	10:15	Not recorded	16.5	280	8.0	7.8	91.6			14.5		20		40	0.40	0.10
SRCD	114-SRC-10	9:00	high (>5 gals/sec)	18.0	414	9.0	7.4		1.9		14.6		300		800	0.40	0.10
SRCD	114-WIC-10	9:10	moderate (<5 gal/sec)	12.0	240	5.0	7.0		4.0		10.0		50		170	0.40	0.10
SRCD	114-MAT-10	10:37	high (>5 gals/sec)	16.0	342.3	7.7	7.9	120.0			14.4		220		900	0.40	0.11
SRCD	114-LSR-10	8:40	high (>5 gals/sec)	15.0	401	7.4	7.1		20.0		17.1		210		500	0.40	0.44
SRCD	114-WSL-20	11:20	high (>5 gals/sec)	17.5	440	6.0	7.0	120.0			15.5		240		2	0.60	0.10
SRCD	114-COL-10	11:04	trickle (<1 quart/sec)	27.0	703.2	8.7	7.7	120.0			17.6		500		800	0.70	0.10
SRCD	113-ALD-10	13:50	high (>5 gals/sec)	14.0	170	8.0	6.5				12.5						
SRCD	113-ARC-10	14:45	high (>5 gals/sec)	16.0	230	8.0	7.3	40.0			13.0						
SRCD	113-BRU-10	14:15	high (>5 gals/sec)	14.0	200	8.0	7.0	122.0			13.0						
SRCD	113-ELK-10	13:20	high (>5 gals/sec)	14.3	180	6.0	7.0	122.0			11.5						
SRCD	113-FRG-10	13:40	moderate (<5 gal/sec)	17.0	200	10.0	7.7	122.0			12.0						
SRCD	113-FTR-10	NR	high (>5 gals/sec)	19.0	399	11.3	8.1		5.0		11.2						
SRCD	113-GAR-10	14:30	high (>5 gals/sec)	14.5	170	6.0	7.0	122.0			15.0						
SRCD	113-GRW-10	12:30	high (>5 gals/sec)	16.0	190	8.0	7.0	122.0			11.5						
SRCD	113-GUA-10	13:09	high (>5 gals/sec)	19.0	230	8.0	7.8	122.0			18.0						
SRCD	113-MEY-10	NR	high (>5 gals/sec)	18.0	424	11.8	8.2		1.1		10.4						
SRCD	113-MIC-10	NR	high (>5 gals/sec)	18.0	230	11.5	0.0		5.5		11.2						
SRCD	113-NAV-10	15:40	high (>5 gals/sec)	15.0	1160	8.0	7.5	122.0			15.0						
SRCD	113-NFG-10	15:20	high (>5 gals/sec)	19.0	170	8.0	7.5	122.0			15.0						

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CMC	StationID	Time of Field Measurements	Flow	AirTemp (Deg C)	Conductivity (uS)	Dissolved Oxygen (ppm)	pH	Tranparency (cm)	Turbidity (JTU)	Salinity (ppt)	WaterTemp (Deg C)	E. Coli (MPN/100 ml)	Fecal coliform (CFU/100 ml)	Enterrococcus (MPN/100ml)	Total coliform (MPN/100ml)	Nitrate-N (mg/L)	Ortho-phosphate-P (mg/L)
SRCD	113-RUG-10	10:15	high (>5 gals/sec)	19.0	204	11.2	8.3		0.8		12.6						
SRCD	113-SAL-10	15:35	high (>5 gals/sec)	18.0	160	8.0	7.6	117.0			14.0						
SRCD	113-SCG-10	14:10	high (>5 gals/sec)	15.0	180	8.0	7.9	115.0			11.0						
SRCD	113-SCH-10	16:05	moderate (<5 gal/sec)	18.0	180	10.0	7.1	122.0			12.0						
SRCD	113-SFG-10	NR	high (>5 gals/sec)	19.0	230	8.0	7.9	122.0			17.0						
SRCD	113-STF-10	NR	high (>5 gals/sec)	18.5	230	11.4	8.1		2.6		10.5						
SRCD	113-TIM-10	NR	high (>5 gals/sec)	18.5	360	10.7	8.1		2.5		11.0						
SRCD	113-WFG-10	16:20	high (>5 gals/sec)	21.0	240	8.0	7.9	122.0			19.0						
SRCD	114-PAU-10	9:30	moderate (<5 gal/sec)	14.0	275.3	7.7	7.8	120.0			13.8						
SRCD	114-PET-10	12:00	moderate (<5 gal/sec)	19.0	453.8	6.5	7.5	120.0			15.4						
SRCD	114-PIN-10	12:30	high (>5 gals/sec)	24.0	596.7	9.8	7.9	120.0			16.8						
SRCD	115-CHG-10	10:35	high (>5 gals/sec)	15.0	350	9.5	7.7		2.9		13.0						
SRCD	115-EAM-10	10:02	trickle (<1 quart/sec)	16.0	1260	8.0	7.5		20.7		17.0						
SRCD	115-ESA-10	10:28	trickle (<1 quart/sec)	17.0	1430	10.0	7.5		10.1		18.0						
SRCD	115-JOG-10	9:50	moderate (<5 gal/sec)	17.0	380	10.5	7.8		8.8		12.0						
SRCD	115-MAG-10	9:30	moderate (<5 gal/sec)	16.0	290	10.5	8.0				12.0						
SRCD	115-SAC-10	8:30	high (>5 gals/sec)	12.0	2500	9.8	7.5		3.9		12.0						
SRCD	115-SCC-10	9:00	moderate (<5 gal/sec)	13.0	2	11.4	7.9		2.2		12.0						
SRCD	201-1VC-10	11:28	moderate (<5 gal/sec)	21.1	173.3	9.7	7.8	120.0			11.7						
SRCD	201-2VC-10	11:50	moderate (<5 gal/sec)	18.9	260	9.6	7.8	122.0			11.9						
SRCD	201-BVC-10	9:55	moderate (<5 gal/sec)	16.7	342.2	9.7	7.1	122.0			11.3						
SRCD	201-DUX-10	10:48	Not recorded	13.3	51600	11.2	8.1	37.0			14.5	1			8		
SRCD	201-FHC-10	11:11	moderate (<5 gal/sec)	18.9	301.9	9.9	7.8	122.0			11.4						
SRCD	201-LAG-30	10:50	moderate (<5 gal/sec)	16.5	240	10.0	7.5	120.0			11.0						
SRCD	201-MPP-10	12:00	Not recorded	16.0	OR	8.0	8.0	12.1			15.0	39			157		
SRCD	201-SGC-20	12:00	moderate (<5 gal/sec)	31.0	360	8.0	7.5	120.0			13.5						
SRCD	201-SGC-30	12:54	moderate (<5 gal/sec)	18.0	330	9.0	7.5	120.0			12.0						
SRCD	201-WBC-20	17:05	moderate (<5 gal/sec)	18.0		10.2	7.0				11.5						
SRCD	201-WBC-30	16:25	moderate (<5 gal/sec)	17.5		10.8	7.5				11.5						
SRCD	201-WBC-40	15:15	moderate (<5 gal/sec)	17.5		9.8	7.5				13.0						
SRCD	201-WBC-45	15:15	moderate (<5 gal/sec)	21.5		9.8	7.5				11.5						
FOE	204-GUADA-22	12:45	high (>5 gals/sec)	24.5	480	15.0	8.5				18.0	98			2143	0.00	0.00
FOE	204-STEVE-21	14:45	high (>5 gals/sec)	34.0	510	9.7	8.0		20.0		18.0	663			3873	0.00	0.00
FOE	204-LOSGA-21	15:30	Stagnant water	26.0	420	11.0	8.0		10.0		21.7	30			3076	0.10	0.10
FOE	205-MATAD-25	10:02	moderate (<5 gal/sec)	16.7			7.5		10.0		16.1					0.20	0.28
FOE	204-GUADA-21	9:45	high (>5 gals/sec)	14.8	660	10.0	8.0		5.0		17.0	278			24192	0.20	1.00
FOE	205-SANFRA-21	10:45	moderate (<5 gal/sec)	15.6		9.8	7.5		0.0		13.9					0.60	0.09
FOE	205-ADOBE-23	11:15	moderate (<5 gal/sec)	18.5			8.0		0.0		13.8					0.80	0.31
FOE	205-MATAD-21	12:50	moderate (<5 gal/sec)	22.8			8.0		90.0		23.1					0.80	0.57
FOE	203-CODOR-020	14:16	moderate (<5 gal/sec)	20.6		10.7	8.1				16.0						
FOE	203-CODOR-040	14:39	moderate (<5 gal/sec)	22.0		9.7	8.1				14.6						
FOE	203-CORTE-21	11:50	moderate (<5 gal/sec)	20.6		10.2	7.9		0.0		13.4						
FOE	203-STRAW-21	13:30	Not recorded	16.5	570	9.3	8.0				14.5						
FOE	204-ALAME-21	11:00	moderate (<5 gal/sec)			6.6	8.0		5.0		16.5						
FOE	204-ALAME-22	14:00	moderate (<5 gal/sec)			6.7	8.0		0.0		20.5						
FOE	204-ALAME-23	9:54	moderate (<5 gal/sec)			11.0	7.5		5.0		17.0						
FOE	204-ALAME-24	10:15	Stagnant water			6.5	7.0		5.0		17.5						
FOE	204-ARROY-21	17:15	moderate (<5 gal/sec)	20.0	720	8.8	8.5		0.0		17.5						
FOE	204-CORDI-21	11:20	moderate (<5 gal/sec)	20.6		10.7	8.1				16.0						
FOE	204-DAMON-21	11:00	Not recorded			6.8	8.5										
FOE	204-GLENE-21	14:45	moderate (<5 gal/sec)	22.5		10.0	7.5				15.5						
FOE	204-LAKEM-	12:45	Stagnant water	17.0		8.0	7.5				22.0						
FOE	204-LAKEM-212	11:15	Stagnant water	24.0		6.0	7.0				18.0						
FOE	204-LAKEM-217b	11:55	Stagnant water	20.0		5.0	7.0				19.0						
FOE	204-LAKEM-25	12:05	Stagnant water	23.0		6.0	7.0				19.0						
FOE	204-LAKEM-29	11:00	Stagnant water	22.0		6.0	7.0				18.0						
FOE	204-LAKEM-5b	0:20	Stagnant water	18.0		6.0	7.0				19.0						
FOE	204-PERAL-21	15:15	moderate (<5 gal/sec)	21.0		12.0	8.5		0.0		17.0						
FOE	204-SANLE-21	19:10	trickle (<1 quart/sec)	18.5	630	10.3	8.0		0.0		16.5						
FOE	204-SAUSA-22	9:30	moderate (<5 gal/sec)	15.9		10.3	8.2				11.1						
FOE	204-SLE-044	11:55	trickle (<1 quart/sec)	18.5		3.9	6.6		5.0		14.0						
FOE	204-SULPH-21	19:45	trickle (<1 quart/sec)	13.5		7.2	8.5		0.0		14.0						
FOE	204-TEMES-21	8:40	moderate (<5 gal/sec)	13.0		10.8	8.0		0.0		12.0						
FOE	205-ADOBE-24	11:50	Stagnant water	22.0			7.0		1.5		22.0						
FOE	205-MATAD-22	12:18	moderate (<5 gal/sec)	20.0			8.0		10.0		13.6						
FOE	205-MATAD-23	11:25	moderate (<5 gal/sec)	21.1			8.0		5.0		14.7						
FOE	205-MATAD-24	11:25	moderate (<5 gal/sec)	19.4			8.0		10.0		12.8						
FOE	205-MATAD-26	10:45	trickle (<1 quart/sec)	16.7			8.5		30.0		11.1						
FOE	206-PINOL-21	7:10	moderate (<5 gal/sec)	10.5	1600		7.5		8.0		14.0						
FOE	206-PINOL-22	8:50	Not recorded	13.0	1500		7.5		3.0		14.0						
FOE	206-PINOL-23	9:46	moderate (<5 gal/sec)	19.5	1400		8.0		32.0		14.0						
FOE	206-PINOL-24	10:30	moderate (<5 gal/sec)	20.5	1400		8.0		17.0		14.0						
FOE	206-SANPA-21	14:45	moderate (<5 gal/sec)	21.0	1620	10.0					15.0						
FOE	206-WILDC-21	10:15	trickle (<1 quart/sec)	21.5			7.6				13.5						
FOE	206-WILDC-22	11:00	moderate (<5 gal/sec)	19.0		9.6	7.6		0.0		14.5						
FOE	206-WILDC-23	12:00	moderate (<5 gal/sec)	22.0		10.0	7.6		0.0		19.0						
FOE	207-ADH-1	12:30	moderate (<5 gal/sec)	20.0		8.2	8.0		0.0		14.0						
FOE	207-ALHAM-6	11:20	moderate (<5 gal/sec)	20.0		9.5	8.0		0.0		13.5						
FOE	207-KIRKE-214	14:05	trickle (<1 quart/sec)	27.2		9.9	7.3		10.0		25.8						
FOE	207-KIRKE-26	12:20	moderate (<5 gal/sec)	26.5		4.5	7.4		5.0		14.7						
FOE	207-SANRA-21	7:10	moderate (<5 gal/sec)	13.5	930	9.4					15.5						
FOE	207-UNAM-21	NR	trickle (<1 quart/sec)	26.0		5.0	7.5		0.5		17.0						
FOE	207-WALNU-21	11:10	moderate (<5 gal/sec)	16.7	1020	9.2					15.0						
MBNMS	202-GAZOS-11	10:54	moderate (<5 gal/sec)	16.0	320	8.0	7.0		5.0		11.0	262			882	0.00	0.00
MBNMS	202-GAZOS-12	11:36	moderate (<5 gal/sec)	24.0	260	8.0	7.0		0.0		11.0	10			132	0.00	0.00
MBNMS	202-GAZOS-13	12:04	moderate (<5 gal/sec)	17.0	290	8.0	7.5		0.0		11.0	10			216	0.00	0.00
MBNMS	202-LAHON-11	12:30	moderate (<5 gal/sec)	15.0	680	9.8	8.0		5.0		10.0	142			738	0.00	0.00
MBNMS	202-MONTA-12	11:15	trickle (<1 quart/sec)	14.0	380		6.5				14.0	199			2723	0.00	0.00
MBNMS	202-SANOR-11	10:30	high (>5 gals/sec)	13.0	OR	9.4	7.5		15.0		12.0	134			759	0.00	0.00
MBNMS	202-TUNIT-11	12:50	high (>5 gals/sec)	20.0	710	10.8	7.5		2.0		10.6	10			85	0.00	0.00
MBNMS	202-WHITE-12	10:00	moderate (<5 gal/sec)	14.2	300	9.2	7.5		5.0		11.6	74			934	0.00	0.00
MBNMS	304-APTOS-22	12:37	moderate (<5 gal/sec)	15.5	640	10.0	7.5	120.0			13.0	52			546	0.00	0.00
MBNMS	304-ARROY-21	11:00	trickle (<1 quart/sec)	17.0	530	6.4	7.0		5.0		13.0	135			677	0.00	0.00
MBNMS	304-LAGUN-21	11:35	moderate (<5 gal/sec)	20.1	600	9.8	7.5		1.0		10.4	211			1236	0.00	0.00
MBNMS	304-MOORE-22	12:19	trickle (<1 quart/sec)	17.4	280	3.0	6.5		2.0		14.1	5			199	0.00	0.00
MBNMS	304-ROBSC-21	NR	moderate (<5 gal/sec)	21.0	420	13.8	8.5		5.0		22.0	546			1782	0.00	0.00
MBNMS	304-SANLO-26	14:30	high (>5 gals/sec)	21.0	400	9.0	7.0		0.0		15.0	5			546	0.00	0.00

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CMC	StationID	Time of Field Measurements	Flow	AirTemp (Deg C)	Conductivity (uS)	Dissolved Oxygen (ppm)	pH	Tranparency (cm)	Turbidity (JTU)	Salinity (ppt)	WaterTemp (Deg C)	E. Coli (MPN/100 ml)	Fecal coliform (CFU/100 ml)	Enterrococcus (MPN/100ml)	Total coliform (MPN/100ml)	Nitrate-N (mg/L)	Ortho-phosphate-P (mg/L)
MBNMS	304-SOQUE-21	11:10	high (>5 gals/sec)	17.0	650	9.4	7.5	121.0			13.5	158			1223	0.00	0.00
MBNMS	307-CARME-310	11:30	moderate (<5 gal/sec)	16.5	283	10.6	8.0	118.0			15.0	11			921	0.00	0.00
MBNMS	307-CARME-33	11:47	high (>5 gals/sec)	21.0	260	9.8	6.5	120.0			16.0	16			1410	0.00	0.00
MBNMS	307-CARME-35	NR	high (>5 gals/sec)	21.0	270	10.7	6.5	120.0			16.5	16			1120	0.00	0.00
MBNMS	307-CARME-36	12:35	moderate (<5 gal/sec)	16.0	275	10.6	8.0	118.0			16.0	40			1300	0.00	0.00
MBNMS	307-CARME-37	12:15	moderate (<5 gal/sec)	13.0	280	11.2	8.0	118.0			15.5	4			1120	0.00	0.00
MBNMS	307-CARME-38	10:30	moderate (<5 gal/sec)	16.0	282	10.4	8.0	118.0			14.3	11			1300	0.00	0.00
MBNMS	307-CARME-39	NR	high (>5 gals/sec)	14.0		7.0	6.5	117.0			15.0	1050			2420	0.00	0.00
MBNMS	307-GARZA-31	13:04	moderate (<5 gal/sec)	26.5	210	9.7	7.0	120.0			16.0	17			2420	0.00	0.00
MBNMS	308-BIGSU-31	10:55	moderate (<5 gal/sec)	18.3	260	10.1	7.5				13.3	25			816	0.00	0.00
MBNMS	308-BIGSU-32	11:40	moderate (<5 gal/sec)	18.3	230	10.5	7.5				13.4	7			225	0.00	0.00
MBNMS	308-DOUD-31	12:07	moderate (<5 gal/sec)	13.0	250	8.5	7.0	119.4			10.5	20			2400	0.00	0.00
MBNMS	308-GARRA-31	12:10	high (>5 gals/sec)	15.0	150	11.5	7.0	117.0			11.0	36			1050	0.00	0.00
MBNMS	308-HOTSP-31	13:43	high (>5 gals/sec)	15.6	310	10.0	7.0				13.5	7			727	0.00	0.00
MBNMS	308-MCWAY-31	13:10	moderate (<5 gal/sec)	20.0	310	10.7	7.5				13.3	1			161	0.00	0.00
MBNMS	308-PALOC-31	11:10	moderate (<5 gal/sec)	15.5	44	9.2	7.5	32.5			10.0	116			2420	0.00	0.00
MBNMS	308-PARTI-31	12:43	high (>5 gals/sec)	16.7	280	10.7	7.5				12.9	93			416	0.00	0.00
MBNMS	308-ROCKY-31	11:00	high (>5 gals/sec)	14.3	140	10.7	7.0	63.0			10.3	19			548	0.00	0.00
MBNMS	308-SANJO-31	NR	Stagnant water	19.0		6.0	6.3	117.0			12.0	44			1550	0.00	0.00
MBNMS	308-SOBER-31	NR	moderate (<5 gal/sec)	18.0		8.0	6.5	117.0			13.0	8			2400	0.00	0.00
MBNMS	309-ATASC-42	9:00	high (>5 gals/sec)	15.0	460	7.0	7.0				14.5	231			1313	0.00	0.00
MBNMS	309-GRAVE-41	11:20	high (>5 gals/sec)	21.0	810	9.0	7.5				16.0	1223			11199	0.00	0.00
MBNMS	309-MAJOR-31	10:25	trickle (<1 quart/sec)	15.0	1240	8.0	8.0				13.0	113			2400	0.00	0.00
MBNMS	309-PASOR-41	9:45	high (>5 gals/sec)	19.0	640	7.0	8.5				17.0	201			1725	0.00	0.00
MBNMS	309-RINCO-41	11:35	moderate (<5 gal/sec)	31.0		8.0	8.2				19.0	789			3255	0.00	0.00
MBNMS	309-SALIN-44	10:50	high (>5 gals/sec)	27.0	810	10.0	7.5				19.5	63			1658	0.00	0.00
MBNMS	309-SALIN-45	NR	trickle (<1 quart/sec)	29.0		7.0	8.2				20.0	41			1354	0.00	0.00
MBNMS	309-SALIN-47	10:15	high (>5 gals/sec)	25.0	740	8.5	8.3				17.0	31			2014	0.00	0.00
MBNMS	309-SKYLI-31	11:40	trickle (<1 quart/sec)	16.0	520	10.0	8.5				20.0	10			2490	0.00	0.00
MBNMS	309-SMARG-41	9:50	high (>5 gals/sec)	17.5	730	7.0	8.0				17.5	305			4106	0.00	0.00
MBNMS	310-CARPO-41	9:55	high (>5 gals/sec)	16.0	360	9.0	7.5	116.0			14.5	41			512	0.00	0.00
MBNMS	310-DAL-41	NR	trickle (<1 quart/sec)	17.0	940	10.8	7.9		0.5		16.6	97			1789	0.00	0.00
MBNMS	310-SANTA-41	NR	moderate (<5 gal/sec)	15.5	770	12.6	8.0	120.0			15.5					0.00	0.00
MBNMS	317-ESTRE-43	12:15	moderate (<5 gal/sec)	26.0	1270	9.5	8.3				24.0	1274			6488	0.00	0.00
MBNMS	309-ATASC-41	10:22	high (>5 gals/sec)	17.5	790	7.0	7.5				16.5	216			4611	0.00	0.06
MBNMS	310-PENN-41	NR	moderate (<5 gal/sec)	13.0	780	8.5	7.7		0.7		13.5	624			1850	0.00	0.08
MBNMS	304-APTOS-21	11:15	high (>5 gals/sec)	15.5	690	9.0	7.5	120.0			11.5	31			789	0.00	0.10
MBNMS	304-APTOS-23	13:15	Stagnant water	18.5	740	9.0	7.5	48.4			15.0	275			1017	0.00	0.10
MBNMS	304-FERRA-21	12:50	moderate (<5 gal/sec)	14.5	400	7.0	7.0		0.0		13.0	576			2143	0.00	0.10
MBNMS	309-YERBA-41	10:25	trickle (<1 quart/sec)	26.0	1605	4.5	7.8				15.0	987			4352	0.00	0.19
MBNMS	309-MOROC-33	NR	trickle (<1 quart/sec)	17.0	33	7.4	9.0	6.0			26.0	100			199000	0.00	0.21
MBNMS	309-TROUT-41	11:00	moderate (<5 gal/sec)	27.0		7.5	8.2				15.5	805			3654	0.00	0.33
MBNMS	309-MOROC-32	11:27	trickle (<1 quart/sec)	17.0	32	9.0	9.0	2.0			22.0	24192			190000	0.00	0.93
MBNMS	304-CORCO-22	13:38	moderate (<5 gal/sec)	20.0	OR	8.6	9.0		5.0		17.5	130			24192	0.02	0.00
MBNMS	304-CORCO-21	11:15	Stagnant water	18.0	OR	8.2	9.5		5.0		22.0	189			8664	0.02	0.10
MBNMS	304-MOORE-26	13:56	moderate (<5 gal/sec)	24.0	OR	10.0	8.5		40.0		22.0	85			1842	0.05	0.00
MBNMS	202-DENNI-11	13:30	moderate (<5 gal/sec)	18.0	280	9.2	7.0				12.0	31			857	0.07	0.00
MBNMS	308-SYCAM-31	12:02	trickle (<1 quart/sec)	17.8	280	8.5	7.0				13.0	3			248	0.07	0.00
MBNMS	309-VETER-31	12:25	trickle (<1 quart/sec)	18.0	1447	6.0	7.0	130.0			15.0	10			8840	0.08	0.00
MBNMS	304-SCOTT-22	12:00	high (>5 gals/sec)	16.0	100	9.2	7.0		0.0		12.0	52			563	0.10	0.05
MBNMS	304-WADDE-21	11:00	high (>5 gals/sec)									20			388	0.10	0.05
MBNMS	304-SANLO-22	10:40	moderate (<5 gal/sec)	20.0	OR	7.7	8.0	121.0			15.0	259			1187	0.11	0.05
MBNMS	202-ALPIN-11	11:45	moderate (<5 gal/sec)	15.5	830	9.6	8.0		15.0		10.5	85			987	0.12	0.00
MBNMS	202-MONTA-11	11:15	trickle (<1 quart/sec)	14.0	370	8.4	6.5				13.0	313			3076	0.12	0.00
MBNMS	202-WHITE-11	11:08	moderate (<5 gal/sec)	13.5	250	10.8	7.0		5.0		12.0	10			443	0.12	0.00
MBNMS	304-SCOTT-23	13:00	high (>5 gals/sec)	16.0	100	10.0	7.0		0.0		12.0	10			398	0.12	0.05
MBNMS	304-LITTL-21	12:30	high (>5 gals/sec)	15.5	300	10.0	7.0		0.0		12.0	5			448	0.12	0.10
MBNMS	304-VALEN-21	12:04	moderate (<5 gal/sec)	17.2	640	8.0	7.5	120.0			13.0					0.12	0.20
MBNMS	304-SCOTT-24	13:30	high (>5 gals/sec)	14.0	100	10.0	7.0		0.0		13.0	5			416	0.13	0.05
MBNMS	202-PESCA-11	12:45	moderate (<5 gal/sec)	12.0	570	8.0	8.0		5.0		13.0	96			650	0.14	0.00
MBNMS	304-SANVI-21	12:19	high (>5 gals/sec)	17.0	300	9.8	7.5		0.0		10.2	10			249	0.14	0.05
MBNMS	202-LOBIT-11	12:05	moderate (<5 gal/sec)	18.5	830	11.0	7.5		9.7		10.0	909			1782	0.15	0.10
MBNMS	202-PURIS-11	11:20	high (>5 gals/sec)	15.0	600	11.0	7.0		2.1		9.9	20			187	0.16	0.00
MBNMS	304-BOULD-21	12:16	moderate (<5 gal/sec)	27.8	312	5.8	7.8		2.9		13.8	110			581	0.17	0.05
MBNMS	304-MOORE-24	10:50	moderate (<5 gal/sec)	15.1	540	7.0	6.5		3.0		11.9	228			1789	0.18	0.05
MBNMS	304-MAJOR-21	10:38	moderate (<5 gal/sec)	20.4	400	8.8	7.5		0.0		10.2	275			794	0.19	0.05
MBNMS	202-POMPO-11	9:50	moderate (<5 gal/sec)	13.0	1670	8.0	7.5		15.0		11.0	195			3448	0.20	0.00
MBNMS	310-SBE-41	11:45	trickle (<1 quart/sec)	16.4	880	9.7	7.9		1.6		16.3	24192			24192	0.20	0.13
MBNMS	304-BRANC-21	12:48	moderate (<5 gal/sec)	22.0	450	13.2	8.5	121.0			18.5	314			3255	0.20	0.15
MBNMS	305-WATSO-21	10:45	Stagnant water	18.0	276	0.3	7.2	88.6			14.1	9208			24196	0.20	0.34
MBNMS	305-STRUV-21	10:05	Stagnant water	17.5	200	4.5	7.5	90.0			17.0	315			12997	0.20	0.43
MBNMS	202-MARTI-11	10:20	trickle (<1 quart/sec)	13.0	250	8.8	7.0				11.0	132			689	0.21	0.00
MBNMS	304-ARANA-22	11:15	moderate (<5 gal/sec)	14.5	OR	5.7	8.0	40.2			13.5	74			1664	0.22	0.05
MBNMS	304-SANLO-21	11:50	moderate (<5 gal/sec)	25.1	450	8.5	8.0	121.0			15.0	135			1309	0.24	0.05
MBNMS	309-LIBRA-31	11:02	trickle (<1 quart/sec)	14.5	1680	11.0	7.5	106.0			13.0	4350			24000	0.25	0.00
MBNMS	304-ARANA-23	14:40	moderate (<5 gal/sec)	18.5	320	9.0	7.0	121.0			12.0	62			985	0.26	0.10
MBNMS	304-SANLO-25	10:00	moderate (<5 gal/sec)	17.0	600	9.0	7.0		0.0		10.5	41			744	0.26	0.10
MBNMS	202-CALER-11	11:56	moderate (<5 gal/sec)	19.6	363	9.6	7.0		15.0		13.2	169			3255	0.30	0.00
MBNMS	202-SANPE-11	13:00	trickle (<1 quart/sec)	15.3	428	9.7	7.5		5.0		16.9	203			5475	0.30	0.00
MBNMS	305-HARKI-23	14:00	moderate (<5 gal/sec)	28.5	300	6.0	7.5	41.2			14.0	373			9804	0.30	0.12
MBNMS	304-BRANC-22	11:40	moderate (<5 gal/sec)	18.0	420	8.2	7.0	120.0			14.5	327			1585	0.30	0.15
MBNMS	305-WSTRU-21	9:45	Stagnant water	17.0	600	1.5	7.0	88.0			12.5	145			2987	0.30	0.22
MBNMS	305-STRUV-22	11:10	Stagnant water	18.5	400	4.0	7.5	121.0			19.0	108			2723	0.30	0.77
MBNMS	304-MOORE-25	13:17	trickle (<1 quart/sec)	19.9	460	7.0	7.5		0.0		14.2	41			2046	0.31	0.05
MBNMS	202-SANVI-11	12:30	trickle (<1 quart/sec)	16.0	300	9.4	7.0				13.0	565			1850	0.35	0.00
MBNMS	202-MILLC-11	10:30	high (>5 gals/sec)	19.5	710	10.8	7.0		8.3		9.5	63			1012	0.36	0.00
MBNMS	202-BUTAN-11	13:08	moderate (<5 gal/sec)	16.0	330	8.0	7.5		10.0		12.0	20			613	0.38	0.00
MBNMS	305-CORRA-22	15:00	high (>5 gals/sec)	20.5	400	7.0	7.5	121.0			14.0	45			2420	0.40	0.00
MBNMS	309-SALIN-46	11:20	high (>5 gals/sec)	21.0	1030	9.3	8.5				22.0	52			1935	0.40	0.47
MBNMS	304-ARANA-21	13:25	moderate (<5 gal/sec)	23.0	490	8.6	7.5	121.0			12.5	547			2143	0.43	0.21
MBNMS	308-MALPA-31	12:45	moderate (<5 gal/sec)	19.5	220	10.4	7.0	117.0			12.9	16			2420	0.46	0.00
MBNMS	304-MOLIN-21	13:35	moderate (<5 gal/sec)	19.5	200	9.4	7.0		0.0		10.3	96			1500	0.49	0.17
MBNMS	304-MOORE-23	14:02	moderate (<5 gal/sec)	20.1	500	7.0	6.5		0.0		13.2	110			932	0.53	0.05
MBNMS	306-ELKHO-32	12:15	Stagnant water	18.6		2.5	7.6		6.1	31.70	19.0	410			4840	0.60	0.27
MBNMS	304-CARBO-21	13:15	moderate (<5 gal/sec)	17.0	390	9.6	7.0	121.0			15.0	243			1464	0.67	0.05

California Coast Wide Snapshot Day 2003

CMC	StationID	Time of Field Measurements	Flow	AirTemp (Deg C)	Conductivity (uS)	Dissolved Oxygen (ppm)	pH	Tranparency (cm)	Turbidity (JTU)	Salinity (ppt)	WaterTemp (Deg C)	E. Coli (MPN/100 ml)	Fecal coliform (CFU/100 ml)	Enterrococcus (MPN/100ml)	Total coliform (MPN/100ml)	Nitrate-N (mg/L)	Ortho-phosphate-P (mg/L)
MBNMS	304-VALEN-22	12:45	moderate (<5 gal/sec)	17.0	570	9.0	7.5	90.6			13.5	905			2481	0.67	0.18
MBNMS	309-ASILO-31	11:30	Not recorded	15.0	1737	6.0	7.0	130.0			16.0	310			11900	0.70	0.00
MBNMS	305-CORRA-21	14:25	moderate (<5 gal/sec)	18.0	500	8.0	8.0	121.0			15.5	66			2420	0.80	0.05
MBNMS	305-HARKI-21	13:30	Stagnant water	19.0	642	10.0	8.0	15.8			21.8	3076			10462	0.80	0.56
MBNMS	309-SALIN-32	11:25	moderate (<5 gal/sec)	12.9	527	12.0	8.5	32.4			21.8	20			4610	0.89	0.00
MBNMS	202-FRENC-11	8:40	Stagnant water	16.5	340	11.5	7.0		13.6		10.5	712			3873	1.08	0.00
MBNMS	306-ELKHO-31	11:55	moderate (<5 gal/sec)	18.7		6.2	8.0		11.0	31.80	16.8	46			260	1.10	0.07
MBNMS	306-ELKHO-33	11:15	high (>5 gals/sec)	14.1		6.3	7.8		18.1	31.97	16.7	43			194	1.10	0.08
MBNMS	304-LIDEL-21	10:50	moderate (<5 gal/sec)	17.0	400	8.0	7.5		0.0		11.0	422			1935	1.34	0.20
MBNMS	310-SANSI-41	NR	moderate (<5 gal/sec)	15.0	570	9.2	7.5	120.0			16.0	487			3076	1.40	0.08
MBNMS	309-SALIN-33	10:34	moderate (<5 gal/sec)	17.7	580	11.0	7.5	14.1			17.5	52			3870	1.45	0.00
MBNMS	202-PILAR-11	9:30	high (>5 gals/sec)	18.0	600	11.1	7.0		9.1		11.0	134			1354	1.57	0.00
MBNMS	309-CENTR-31	10:30	moderate (<5 gal/sec)	15.0	1608	10.0	7.0	130.0			15.0	19200			46100	1.71	0.18
MBNMS	304-ARROY-22	12:30	moderate (<5 gal/sec)	19.5	690	9.8	7.5		5.0		18.0	52			2755	1.93	0.20
MBNMS	309-UPPER-31	11:05	trickle (<1 quart/sec)	18.9	770	7.0	7.0	31.0			19.3	5650			64900	2.00	0.00
MBNMS	309-SALIN-31	10:30	moderate (<5 gal/sec)	15.5	668	10.0	8.0	23.6			19.9	10			4350	3.28	0.00
MBNMS	304-ARROY-23	14:22	moderate (<5 gal/sec)	21.0	710	12.1	8.0		5.0		17.0	110			1956	3.58	0.05
MBNMS	310-UCF-41	9:58	moderate (<5 gal/sec)	14.3	1010	8.5	7.7		0.9		15.4	161			2851	3.80	0.59
MBNMS	305-WATSO-22	13:00	moderate (<5 gal/sec)	20.0	600	12.0	8.0	57.0			19.5	75			24196	4.10	0.78
MBNMS	202-CALER-12	11:07	moderate (<5 gal/sec)	15.6	585	7.1	7.5		5.0		18.5	63			2489	4.31	1.59
MBNMS	305-PAJAR-21	11:45	high (>5 gals/sec)	16.0	1136	10.3	8.4	121.0			17.5	158			6867	4.90	0.06
MBNMS	309-MOROC-31	10:45	trickle (<1 quart/sec)	21.5	30	9.4	8.5	17.7			18.0	1000			31300	5.04	0.91
MBNMS	305-HARKI-22	12:50	Stagnant water	20.0	700	10.0	7.5	79.6			19.0	62			24196	7.20	0.78
MBNMS	310-SYB-41	10:40	Stagnant water	19.3	5300	9.9	8.1		12.3		16.6	10			1850	9.20	0.15
MBNMS	305-WATSO-23	12:05	high (>5 gals/sec)	19.0	7560	9.8	7.9	59.0			19.7	31			24196	10.40	0.22
MBNMS	309-ALISA-32	11:20	trickle (<1 quart/sec)	17.6	460	7.0	7.5	14.0			18.0	100			38700	11.90	0.55
MBNMS	309-TEMBL-32	11:00	trickle (<1 quart/sec)	14.4	2300	12.0	8.0	9.6			24.0	1000			179000	13.40	0.00
MBNMS	309-NATIV-31	11:50	moderate (<5 gal/sec)	19.4	940	7.0	6.5	15.0			14.2	410			13300	16.00	0.79
MBNMS	309-GABIL-31	10:38	Stagnant water	16.9	980	8.0	7.0	122.0			18.0	10			17300	22.10	0.00
MBNMS	306-ELKHO-34	12:32	trickle (<1 quart/sec)	21.8		16.4	8.6		4.1	0.98	19.0	168			4840	33.00	1.72
MBNMS	309-TEMBL-31	10:30	moderate (<5 gal/sec)	12.2	2200	9.0	8.0	9.0			18.0	100			41100	33.50	0.65
MBNMS	305-BEACH-21	12:20	moderate (<5 gal/sec)		3180	10.0	7.8				16.0	173			24196	55.87	0.00
MBNMS	309-ALISA-31	11:30	trickle (<1 quart/sec)	17.2	3200	8.0	8.5	14.0			21.0	310			173000	78.30	0.31
MBNMS	304-SOQUE-22	12:32	high (>5 gals/sec)	18.0	1170	10.0	8.0	121.0			16.0	173			1110		
MBNMS	304-WILDE-21	11:20	moderate (<5 gal/sec)	16.0	470	7.0	7.2		0.0		11.0	135			1223		
MBNMS	304-WILDE-22	12:20	trickle (<1 quart/sec)	18.0	1000	8.0	7.2		0.0		18.0	776			2098		
MBNMS	308-BIGCR-31	NR	high (>5 gals/sec)	14.6	290	10.6	8.3		5.0		12.6	5					
MBNMS	308-DANIC-31	12:55	high (>5 gals/sec)	16.0	360	10.7	8.3		5.0		12.5	0					
MBNMS	308-KIRKC-31	14:00	high (>5 gals/sec)	16.0	410	10.7	8.4		5.0		13.0	9					
MBNMS	308-LIMEK-31	13:30	high (>5 gals/sec)	16.0	280	10.6	8.3		5.0		13.2	14					
MBNMS	308-MILLC-31	14:20	high (>5 gals/sec)	18.0	340	11.0	8.2		0.0		14.0	11					
MBNMS	308-PLASK-31	16:05	high (>5 gals/sec)	16.8	340	10.3	8.2		0.0		12.0	43					
MBNMS	308-PREWI-31	15:20	high (>5 gals/sec)	16.8	290	10.7	8.1		0.0		13.5	50					
MBNMS	308-VICEN-31	12:15	high (>5 gals/sec)	18.0	270	10.4	8.2		5.0		12.5	30					
MBNMS	308-WILDC-31	15:00	moderate (<5 gal/sec)	18.0	370	10.5	8.3		5.0		12.5	20					
MBNMS	308-WILLO-31	16:20	high (>5 gals/sec)	17.5	270	11.3	8.3		0.0		14.5	3					
SBCK	315-Carpi-01	11:30	moderate (<5 gal/sec)	17.2	1432		8.2		0.5		18.4	0			0	0.00	0.01
SBCK	401-Madra-01	11:10	trickle (<1 quart/sec)	20.0	5790	9.9	7.9		1.2		18.0	86			2359	0.00	0.05
SBCK	315-Dever-01	14:10	moderate (<5 gal/sec)	18.9		19.4	8.0	17.0			21.8	31			24192	0.00	0.01
SBCK	315-Gavio-01	10:45	moderate (<5 gal/sec)	17.8	1470	7.0	7.0	120.0			15.7	122			933	0.00	0.07
SBCK	315-Capti-01	11:35	high (>5 gals/sec)	16.7	900	9.4	7.5	120.0			16.1	74			350	0.01	0.05
SBCK	401-Padre-01	10:00	moderate (<5 gal/sec)	22.2	7700	11.4	8.2		0.5		16.2	41			259	0.01	0.04
SBCK	315-Puebl-01	12:20	high (>5 gals/sec)	18.2	920	11.5	7.5	120.0			16.2	41			860	0.01	0.04
SBCK	315-Lagun-01	11:30	moderate (<5 gal/sec)	17.8		10.0	8.5	114.2			21.0	4352			24192	0.01	0.11
SBCK	315-Pila-01	12:25	trickle (<1 quart/sec)	16.9		3.0	7.0	110.0			16.1					0.02	0.09
SBCK	315-Hondo-01	11:30	moderate (<5 gal/sec)	16.9	930	6.5	7.5	120.0			15.1	10			168	0.02	0.05
SBCK	315-Jalam-01	13:18	trickle (<1 quart/sec)		1391	9.7	8.1		0.0		19.8	99			2005	0.02	0.20
SBCK	401-Jabon-01	10:30	moderate (<5 gal/sec)	22.2	9680	10.5	8.2		2.3		17.1	1211			12033	0.04	0.05
SBCK	315-Pedro-01	12:04	moderate (<5 gal/sec)	17.6	1200	12.0	8.5	120.0			21.7	108			3130	0.04	0.03
SBCK	315-Cmarsh-01	12:45	Not recorded	17.8	49000	12.7	8.3		0.9		15.9	10			278	0.07	0.02
SBCK	315-SBHar-01	12:10		19.6	OR	6.0	8.0	120.0			15.9	0			158	0.08	0.05
SBCK	310-Pismo-01	10:02	trickle (<1 quart/sec)		1507	7.5	7.6		0.0		14.5	238			1652	0.10	1.30
SBCK	315-Corral-01	11:15	moderate (<5 gal/sec)	17.8	1610	9.3	7.5	120.0			15.4	109			4611	0.10	0.06
SBCK	315-Missn-01	11:10	moderate (<5 gal/sec)	16.6	12200	8.0	8.0	120.0			18.6	2142			24192	0.10	0.05
SBCK	315-Monte-01	10:25	moderate (<5 gal/sec)	18.9	1620	10.5	8.0		0.1		16.8	197			2481	0.11	0.05
SBCK	315-Sycam-01	11:36	moderate (<5 gal/sec)	16.8	6500	8.0	8.0	120.0			20.3	14136			24192	0.13	0.08
SBCK	315-Tajig-01	14:15	moderate (<5 gal/sec)	21.1		9.0	8.0	120.0			22.3	282			3873	0.24	0.04
SBCK	315-Burro-01	10:20	moderate (<5 gal/sec)	20.3	19400	9.0	8.0	120.0			19.2	520			24192	0.31	0.04
SBCK	402-Ventu-01	12:30	high (>5 gals/sec)	18.3	1070	10.7	8.6		3.3		18.9	41			10	0.65	0.01
SBCK	315-Maria-01	11:20	trickle (<1 quart/sec)	23.1	1600	6.0	8.5	120.0			23.1	148			3255	0.71	0.06
SBCK	403-BubPl-01	11:40	trickle (<1 quart/sec)	19.0	1875	2.5	7.4		3.4		20.8	1860			24192	1.04	0.11
SBCK	401-Sauces-01	10:50	moderate (<5 gal/sec)	21.1	2080	12.9	8.3		0.7		16.2	31			332	1.15	0.06
SBCK	315-Sjose-03	10:30	moderate (<5 gal/sec)	22.9	1500	12.4	8.0	120.0			19.8	253			8664	1.22	0.03
SBCK	315-Sjose-04	11:45	moderate (<5 gal/sec)	20.1	1600	11.2	8.5	120.0			17.4	98			3076	1.34	0.02
SBCK	315-Sjose-02	NR	moderate (<5 gal/sec)	21.1	1200	10.6	8.3	120.0			17.4	108			2909	1.56	0.04
SBCK	315-Rinco-01	11:40	high (>5 gals/sec)	18.9	1427	10.9	8.1		2.2		17.3	350			2723	1.68	0.06
SBCK	315-Rinco-02	10:45	moderate (<5 gal/sec)	18.9	1415	13.2	8.0		2.0		16.7	327			2755	1.73	0.05
SBCK	315-Sjose-01	12:30	moderate (<5 gal/sec)	18.1	1300	12.3	8.5	120.0			16.8	368			4611	1.76	0.04
SBCK	310-ArGra-01	10:26	moderate (<5 gal/sec)		962	9.0	8.0		1.4		15.4	271			2005	1.88	0.30
SBCK	313-Santo-01	11:51	trickle (<1 quart/sec)		2764	8.2	7.9		1.3		17.7	504			2005	1.90	1.10
SBCK	315-Atasc-01	10:35	moderate (<5 gal/sec)	22.2	2800	10.0	8.5	120.0			18.4	86			5794	2.51	0.80
SBCK	315-Hask-01	13:40	moderate (<5 gal/sec)	16.3	1410	7.6	8.0	120.0			16.2	175			2481	2.61	0.02
SBCK	403-BubAS-01	11:50	trickle (<1 quart/sec)	19.0	1800	0.6	6.9		4.9		19.1	10			14136	2.68	0.08
SBCK	315-Monic-01	12:15	moderate (<5 gal/sec)	18.1	597	19.4	9.4		0.0		23.0	41			9804	3.73	0.06
SBCK	315-Romer-01	11:40	moderate (<5 gal/sec)	18.3	1400	12.1	8.5		0.0		16.8	97			1872	3.74	0.05
SBCK	315-Quema-01	12:55	moderate (<5 gal/sec)	17.9		7.0	8.0	120.0			16.2	41			3654	3.81	0.07
SBCK	402-SanJo-01	9:40	moderate (<5 gal/sec)	23.3	10070	9.7	8.0		6.0		19.4	354			12998	4.23	0.08
SBCK	403-Ormon-01	11:02	Stagnant water	24.0	14050	15.0	8.7		7.0		19.6	203			14136	5.46	0.03
SBCK	315-Carne-01	12:30	trickle (<1 quart/sec)	18.0	2200	12.0	8.5	120.0			25.8	359			7270	5.95	0.03
SBCK	315-Bell-01	13:00	moderate (<5 gal/sec)	18.1	1990	11.4	8.0	120.0			16.2	121			12032	6.63	0.06
SBCK	315-Frem-01	13:15	trickle (<1 quart/sec)	24.6	2300	11.0	8.2	120.0			17.9	2098			21192	12.15	0.09
SBCK	314-Synez-01	12:24	moderate (<5 gal/sec)		1515	6.7	7.4		7.0		21.1	64			1652	12.31	2.29
SBCK	315-Tecol-01	12:50	trickle (<1 quart/sec)	19.8	2100	8.0	8.3	120.0			17.8	121			8664	12.67	0.05
SBCK	310-SLuis-01	9:34	moderate (<5 gal/sec)		1100	8.0	7.6		0.0		16.5	288			2005	12.71	1.85
SBCK	315-Frank-01	11:50	moderate (<5 gal/sec)	20.6	1469		9.3		2.2		22.2	359			24192	19.77	0.12

California Coast Wide Snapshot Day 2003

CMC	StationID	Time of Field Measurements	Flow	AirTemp (Deg C)	Conductivity (uS)	Dissolved Oxygen (ppm)	pH	Tranparency (cm)	Turbidity (JTU)	Salinity (ppt)	WaterTemp (Deg C)	E. Coli (MPN/100 ml)	Fecal coliform (CFU/100 ml)	Enterrococcus (MPN/100ml)	Total coliform (MPN/100ml)	Nitrate-N (mg/L)	Ortho-phosphate-P (mg/L)
OCCK	801bc	10:25	trickle (<1 quart/sec)	23.2	3700	6.0	7.6				19.7	100			5650	0.00	1.75
OCCK	801seacliff	11:47	trickle (<1 quart/sec)	26.0		6.4	7.9				20.8	100			10760	0.06	1.23
OCCK	801bc2	10:05	moderate (<5 gal/sec)	24.5		6.2	7.9	122.0			17.9	10			504	0.08	0.14
OCCK	901ale1	7:10	trickle (<1 quart/sec)		6400	15.4	7.9		5.0		7.1	472			19863	0.10	0.58
OCCK	801tal1	11:54	high (>5 gals/sec)	19.1	O/R	7.0	8.5	90.2	8.0		17.4	100			100	0.14	0.17
OCCK	901aliso1	9:45	trickle (<1 quart/sec)	21.1	2940	9.5	7.9		1.0		19.9	200			520	0.30	0.03
OCCK	901pd2	13:55	Stagnant water		9300	12.5	8.5		6.0		19.5	173			24192	0.40	0.16
OCCK	801bg2	14:30	moderate (<5 gal/sec)	24.2	1990	7.0	8.0	122.0	0.0		19.8	100			6830	0.40	0.21
OCCK	901sm2	8:20	Stagnant water		4100	6.5	7.6		7.0		17.7	85			24192	0.40	0.21
OCCK	901pd1	14:20	moderate (<5 gal/sec)		10800	17.6	8.4		4.0		19.9	1210			111990	0.40	0.71
OCCK	801wint1	11:54	moderate (<5 gal/sec)	22.9	1370	12.0	7.7	120.0	9.0		22.1	200			10460	0.60	0.08
OCCK	801bg1	13:08	moderate (<5 gal/sec)	27.2	1990	7.0	8.5	122.0			19.9	200			5290	0.70	0.07
OCCK	801tal2	12:15	Stagnant water	21.7	1630	10.0	8.7	10.6	3.0		25.7	31			24192	0.70	0.18
OCCK	901sj1	NR	high (>5 gals/sec)		2200	8.8	8.3		7.0		26.3	200			1990	0.80	0.02
OCCK	901aliso2	10:30	trickle (<1 quart/sec)	17.8	2790	10.0	8.0		1.0		16.5	970			96060	0.80	0.33
OCCK	801SUN1	11:48	moderate (<5 gal/sec)	20.8	1240	12.0	8.0	120.0			23.7	200			46110	1.00	0.12
OCCK	901salt3	12:00	high (>5 gals/sec)	18.1	4240	11.6	8.1		5.0		20.6	1310			12570	1.20	0.16
OCCK	801mc2	10:10	moderate (<5 gal/sec)	22.7	8690	7.7	7.6		2.0		16.8	510			95080	1.30	0.09
OCCK	901aliso3	13:00	Stagnant water	18.7	3930		8.7		2.0		22.4	630			104620	1.30	0.12
OCCK	801sd	NR	moderate (<5 gal/sec)	17.5	10210	10.0	8.2				19.6	100			7760	1.50	0.10
OCCK	901salt2	11:30	trickle (<1 quart/sec)	26.1	4840	13.4	7.9		6.0		19.4	310			1790	1.80	0.00
OCCK	901segd2	7:00	high (>5 gals/sec)		6800	7.5	7.9		6.0		16.4	63			24192	1.90	0.38
OCCK	801mc1	9:50	moderate (<5 gal/sec)	22.7	7870	7.5	7.2		4.0		17.0	100			3900	2.50	0.65
OCCK	801bc1	9:00	trickle (<1 quart/sec)	23.5			8.2				20.0	860			17930	3.00	0.06
OCCK	801lt	9:00	moderate (<5 gal/sec)	22.7	5070	8.3	7.8		5.0		16.5	5470			27000	3.10	0.16
OCCK	901segd1	6:10	moderate (<5 gal/sec)	15.5	4300	8.0	7.5		4.0		15.9	20980			241920	5.00	1.22
OCCK	405sf04	10:30	Not recorded	22.5	56000	6.0	8.0		8.0		24.3	41			722		
OCCK	405sf05	9:30	high (>5 gals/sec)	21.5	48000	5.0	7.8		4.0		19.0	179			6294		
OCCK	405St06	8:45	moderate (<5 gal/sec)	19.5	54000	4.8	7.8		2.0		19.7				10		
OCCK	801sf01	12:10	Not recorded	27.0	61000	5.9	8.8		2.5		18.5	10			583		
OCCK	801sf02	11:40	Not recorded	27.0	61000	6.1	8.1		3.5		19.6	10			738		
OCCK	801sf03	10:50	Not recorded	26.5	59000	4.8	7.8		2.4		20.3	10			3160		
SDBK	90650-TCW-10	10:15	NR	21.6	5320	10.0	8.0		34.8		22.0	168			24192	0.02	
SDBK	90640-RCW-20	11:17	NR	21.8	6840	10.0	8.0		25.2		20.1	155			24192	0.04	
SDBK	90700-SDRW-20	11:25	NR	19.0	2655	4.0	8.5		36.3		21.0	158			17329	0.05	
SDBK	90900-SWRW-10	12:55	NR	22.2	4345	3.5	7.6		3.7		17.8	187			17329	0.05	
SDBK	90822-CCW-20	10:55	NR	23.0	1495	6.0	7.8		2.8		19.8	323			6867	0.09	
SDBK	MEX-ASM-10	11:40	NR	16.3	51500	10.0	8.5		24.8		21.0	457			24192	0.18	
SDBK	91111-TRW-30	10:15	NR	21.5	2820	12.0	8.5		15.7		22.0	10			41	0.19	
SDBK	90300-SLRRW-10	11:10	NR	23.0	2765	8.0	8.0		23.0		17.8	31			8664	0.21	
SDBK	MEX-ALS-10	12:00	NR	18.0	41700	6.0	9.0		17.6		20.0				386	0.23	
SDBK	MEX-AA-10	10:30	NR	19.0	8935	10.0	8.5		28.4		20.0	187			8664	0.39	
SDBK	MEX-AG-10	11:30	NR	17.8	5060	7.0	8.0		79.3		15.0	6131			24192	1.16	
SDBK	MEX-AEM-10	11:20	NR	19.5	3115	4.5	8.0		21.8		19.0	235			24193	1.18	
SDBK	90300-SLRRW-20	12:30	NR	24.0	2300	8.0	8.3		13.8		21.0						
SDBK	90300-SLRRW-30	NR	NR	26.5													
SDBK	90640-RCW-10	10:12	NR	20.0	6700	8.0	7.0		18.5		20.0						
SDBK	90640-RCW-30	12:18	NR	22.3	6840	10.0	7.0		16.2		20.0						
SDBK	90650-TCW-20	11:10	NR	21.0	4695	8.0	8.0		35.4		18.0						
SDBK	90650-TCW-30	12:00	NR	20.5	1910	5.0	7.5		37.5		17.8						
SDBK	90700-SDRW-10	10:11	NR	18.5	58650	5.0	8.0		30.3		16.0						
SDBK	90700-SDRW-30	12:40	NR	24.3	2405	4.0	8.5		36.0		20.5						
SDBK	90700-SDRW-40	NR	Dry														
SDBK	90700-SDRW-50	10:32	NR	26.0	3440	9.0	7.7		2.3		23.0						
SDBK	90700-SDRW-60	NR	Dry														
SDBK	90822-CCW-10	10:00	NR	19.5	53700	5.0	8.0		0.5		19.4						
SDBK	90822-CCW-30	11:35	NR	22.8	1940	2.0	7.8		2.1		17.8						
SDBK	90822-CCW-40	10:15	NR	18.5	4740	9.0	7.5		22.8		21.0						
SDBK	90822-CCW-50	11:10	NR	22.0	4635	6.0	7.5		12.5		20.0						
SDBK	90822-CCW-60	12:20	NR	23.0	8205	4.0	7.5		16.5		19.0						
SDBK	90831-PCW-10	10:30	NR	20.5	54750	6.0	8.0		3.1		19.0						
SDBK	90831-PCW-20	11:00	Stagnant water	20.0													
SDBK	90831-PCW-30	11:45	Stagnant water	20.2													
SDBK	90900-SWRW-20	10:48	NR	26.1	960	8.5	8.0		18.5		17.1						
SDBK	90900-SWRW-30	12:08	NR	22.4	2950	4.2	7.6		1.5		17.1						
SDBK	91111-TRW-10	12:20	NR	17.0	55650	7.0	8.0		8.6		16.0						
SDBK	91111-TRW-20	11:20	NR	20.5	55000	4.0	7.5		0.5		20.0						